PART 70 OPERATING PERMIT
OFFICE OF AIR QUALITY
and
HAMMOND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

Resco Products, Inc.
5501 Kennedy Avenue
Hammond, Indiana 46323

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this permit.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-7 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

<table>
<tr><td>Operation Permit No.: T089-7791-00222</td><td></td></tr>
<tr><td>Issued by:

_____
Janet G. McCabe, Assistant Commissioner
Office of Air Quality</td><td rowspan="2">Issuance Date:

Expiration Date:</td></tr>
<tr><td>Issued by:

_____
Ronald L. Novak, Director
Hammond Department of Environmental Management</td></tr>
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SECTION A SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management-Office of Air Quality (IDEM-OAQ) and the Hammond Department of Environmental Management (HDEM). The information describing the source contained in Conditions A.1 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

A.1 General Information [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)] [326 IAC 2-7-1(22)]

The Permittee owns and operates a stationary source, manufacturer of Magnesite–Carbon and Alumina–Carbon resin-bonded refractory shapes.

Responsible Official:	John S. Miller, Vice President - Technology
Source Address:	5501 Kennedy Avenue, Hammond, Indiana 46323
Mailing Address:	P. O. Box 2128, Hammond, Indiana 46323
SIC Code:	3297 – Nonclay Refractories
County Location:	Lake County
Source Location Status:	Attainment for Lead, CO and NO_2, and Non-Attainment for all other criteria pollutants including ozone
Source Status:	Part 70 Permit Program Minor Source, under Emission Offset Rules; Major Source, Section 112 of the Clean Air Act

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)] [326 IAC 2-7-5(15)]

This stationary source consists of the following emission units and pollution control devices:

1. Raw Material Processing Department

   A) Magnesite processing, consisting of the following emission units:

      a. Magnesite Handling & Storage – East Silos

         i. Equipment for unloading and initial screening of magnesite. Also includes equipment for conveying fine magnesite fractions to the east storage silos, identified as PD-2, constructed in 1993, with a maximum process rate of 35.0 tons per hour, using a baghouse as control, and exhausting to stack D-2.

      b. Magnesite Handling & Storage – West Silos

         i. Equipment for conveying coarse magnesite fractions to the west storage silos, identified as PD-11, constructed in 1992, at a maximum rate of 20 tons per hour, using a baghouse as control, and exhausting to stack D-11.

      c. Oversize Magnesite Crushing

         i. Equipment for crushing oversize magnesite, screening and conveying to respective east or west storage silos, identified as PD-18, constructed in 1971, at a maximum rate of 35.0 tons per hour, using a baghouse as control, and exhausting to stack D-18.

d. Magnesite Classifying & Conveying to Storage Bins

i. Equipment for screening, milling, and conveying magnesite from the east silos to storage bins for batching. Identified as PD-8(1), PD-8(2), and PD-8(3), constructed in 1956, at a maximum rate of 25.0 tons per hour, 8.3 tons per hour and 25.0 tons per hour, respectively, using a baghouse as control, and exhausting to stack D-8.

ii. Equipment for screening, milling, and conveying magnesite from the west silos to storage bins for batching. Identified as PD-13(1), PD-13(2), and PD-13(3), constructed in 1956, at a maximum rate of 16.0 tons per hour, 6.0 tons per hour, and 16.0 tons per hour respectively, using a baghouse as control, and exhausting to stack D-13.

B) Brick (Bats) crushing, consisting of the following emission units:

a. Recycled refractory material and magnesite crushing and screening operations, identified as PD-9, constructed in 1956, at a maximum rate of 20.0 tons per hour, using a baghouse as control, and exhausting to stack D-9.

2. Mixing Department

A) Mixing Equipment, consisting of the following emission units:

a. Three (3) RV-15 Mixers of resin-bonded refractory materials, consisting of the following emission units:

i. RV-15 Mixers #1 and #2, identified as PD-12B (constructed in 1984) and PD-12C (constructed in 1988), each with a maximum capacity of 4.25 tons per hour, using separate baghouses as control, and exhausting to a common stack D-21.

ii. RV-15 Mixer #3, identified as PD-12D, constructed in 1993, with a maximum capacity of 4.25 tons per hour, using a baghouse as control, and exhausting to stack D-12D.

b. DE-18 Flat Mixer, Mixer #4, identified as PD-14, constructed in 1993, with a maximum capacity of 11.2 tons per hour, using a baghouse as control, and exhausting to stack D-14.

c. DEV-22 Mixer, Mixer #5, identified as PD-4, constructed in 1996, with a maximum capacity of 11.2 tons per hour, using a baghouse as control, and exhausting to stack D-4.

d. Simpson Mixer #2, identified as PD-5, constructed in 1956, with a maximum capacity of 11.2 tons per hour, using a baghouse as control, and exhausting to stack D-5.

e. Simpson Mixer #3, identified as PD-6, constructed in 1956, with a maximum capacity of 11.2 tons per hour, using a baghouse as control, and exhausting to stack D-6.

3. Batching Department

   A) Material transport operations, consisting of the following emission units:

      a. Material Receiving Vessel, identified as PD-12E, constructed in 1993, with a maximum capacity of 18.0 tons per hour, using a baghouse as control, and exhausting to stack D-12E.

      b. Minor Additive Transport Operations, identified as PD-20, constructed in 1993, with a maximum capacity of 0.75 tons per hour, using a baghouse as control, and exhausting to stack D-20.

      c. Graphite Transport Operations, identified as PD-19, constructed in 1993, with a maximum capacity of 6.0 tons per hour, using a baghouse as control, and exhausting to stack D-19.

      d. Batch Station Transport Operations, identified as PD-22, constructed in 1996, with a maximum capacity of 14.0 tons per hour, using a baghouse as control, and exhausting to stack D-22.

4. Pressing Department, consisting of the following emission units:

   A) Resin-bonded materials handling, batching and pressing, identified as PD-12A, constructed in 1996, with a maximum capacity of 10.9 tons per hour, using a baghouse as control, and exhausting to stack D-12A.

5. Drying Department, consisting of the following emission units:

   A) Lanly Bake Oven, using only natural gas, identified as PS-7, constructed in 1957, with a maximum capacity of 7.0 million British thermal units per hour (MMBtu/hr), and maximum drying capacity of 4.0 tons per hour and exhausting to stack S-7.

   B) Basic Dryer, using only natural gas, identified as PS-8, constructed in 1957, with a maximum capacity of 13.5 million British thermal units per hour (MMBtu/hr), and maximum drying capacity of 7.6 tons per hour and exhausting to stack S-8.

   C) Rotary Dryer, using only natural gas, identified as PD-10, constructed in 1957, with a maximum capacity of 3.5 million British thermal units per hour (MMBtu/hr), and maximum drying capacity of 20.0 tons per hour, using a cyclone in series with a baghouse as control and exhausting to stack D-10.

   D) Tunnel Kiln #1, using natural gas as primary fuel and distillate oil as standby fuel, identified as PS-6, constructed in 1956, with a maximum capacity of 40.0 million British thermal units per hour (MMBtu/hr) maximum drying capacity of 4.2 tons per hour, and exhausting to stack S-6.

   E) Tunnel Kiln #2, using natural gas as primary fuel and distillate oil as standby fuel, identified as PS-3, constructed in 1970, with a maximum capacity of 40.0 million British thermal units per hour (MMBtu/hr) maximum drying capacity of 4.2 tons per hour, and exhausting to stack S-3.

6. Montco Line: Dry batching, mixing, and packing of castable refractory consisting of:
   a. One (1) Pre-Batching Area with a bulk bag feed station and a manual bag break station,
   b. One (1) Montco Mixer, with elevated tote station, and

c. One (1) Sacking Station.
The Montco Line, identified as PS-30, constructed in 2001, has a maximum capacity of 10 tons per hour, uses a jet pulse cartridge dust collector (D-30) for particulate control, and exhausts to stack S-30.

A.3 Specifically Regulated Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)]

This stationary source does not currently have any insignificant activities, as defined in 326 IAC 2-7-1(21) that have applicable requirements.

A.4 Part 70 Permit Applicability [326 IAC 2-7-2]

This stationary source is required to have a Part 70 permit by 326 IAC 2-7-2 (Applicability) because:

(a) It is a major source, as defined in 326 IAC 2-7-1(22);

(b) It is a source in a source category designated by the United States Environmental Protection Agency (U.S. EPA) under 40 CFR 70.3 (Part 70 – Applicability).

SECTION B GENERAL CONDITIONS

B.1 Definitions [326 IAC 2-7-1]

Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, the applicable definitions found in the statutes or regulations (IC 13-11, 326 IAC 1-2 and 326 IAC 2-7) shall prevail.

B.2 Permit Term [326 IAC 2-7-5(2)]

This permit is issued for a fixed term of five (5) years from the original date, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date.

B.3 Enforceability [326 IAC 2-7-7]

(a) Unless otherwise stated, all terms and conditions in this permit, including any provisions designed to limit the source's potential to emit, are enforceable by IDEM and HDEM, the United States Environmental Protection Agency (U.S. EPA) and by citizens in accordance with the Clean Air Act.

(b) Unless otherwise stated, all terms and conditions in this permit that are local requirements, including any provisions designed to limit the source's potential to emit, are enforceable by HDEM.

B.4 Termination of Right to Operate [326 IAC 2-7-10] [326 IAC 2-7-4(a)]

The Permittee's right to operate this source terminates with the expiration of this permit unless a timely and complete renewal application is submitted at least nine (9) months prior to the date of expiration of the source’s existing permit, consistent with 326 IAC 2-7-3 and 326 IAC 2-7-4(a).

B.5 Severability [326 IAC 2-7-5(5)]

The provisions of this permit are severable; a determination that any portion of this permit is invalid shall not affect the validity of the remainder of the permit.

B.6 Property Rights or Exclusive Privilege [326 IAC 2-7-5(6)(D)]

This permit does not convey any property rights of any sort, or any exclusive privilege.

B.7 Duty to Supplement and Provide Information [326 IAC 2-7-4(b)] [326 IAC 2-7-5(6)(E)] [326 IAC 2-7-6(6)]

(a) The Permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

and

Hammond Department of Environmental Management
5925 Calumet Avenue, Room 304
Hammond, Indiana 46320

The submittal by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(b) The Permittee shall furnish to IDEM-OAQ and HDEM within a reasonable time, any information that IDEM-OAQ and HDEM may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The submittal by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34). Upon request, the Permittee shall also furnish to IDEM-OAQ and HDEM copies of records required to be kept by this permit or, for information claimed to be confidential, the Permittee may furnish such records directly to the U.S. EPA along with a claim of confidentiality. [326 IAC 2-7-5(6)(E)].

(c) The Permittee may include a claim of confidentiality in accordance with 326 IAC 17. When furnishing copies of requested records directly to U. S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

B.8 Compliance with Permit Conditions [326 IAC 2-7-5(6)(A)] [326 IAC 2-7-5(6)(B)]

(a) The Permittee must comply with all conditions of this permit. Noncompliance with any provision of this permit is grounds for:

(1) Enforcement action;

(2) Permit termination, revocation and reissuance, or modification; or

(3) Denial of a permit renewal application.

(b) Noncompliance with any provisions of this permit, except any provision specifically designated as not federally enforceable, constitutes a violation of the Clean Air Act.

(c) It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

(d) An emergency does constitute an affirmative defense in an enforcement action provided the Permittee complies with the applicable requirements set forth in Section B, Emergency Provisions.

B.9 Certification [326 IAC 2-7-4(f)] [326 IAC 2-7-6(1)] [326 IAC 2-7-5(3)(C)]

(a) Where specifically designated by this permit or required by an applicable requirement, any application form, report, or compliance certification submitted shall contain certification by a responsible official of truth, accuracy, and completeness. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

(b) One (1) certification shall be included, using the attached Certification Form, with each submittal requiring certification.

(c) A responsible official is defined at 326 IAC 2-7-1(34).

B.10 Annual Compliance Certification [326 IAC 2-7-6(5)]

(a) The Permittee shall annually submit a compliance certification report which addresses the status of the source's compliance with the terms and conditions contained in this permit, including emission limitations, standards, or work practices. The initial certification shall cover the time period from the date of final permit issuance through December 31 of the same year. All subsequent certifications shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted in letter form no later than April 15 of each year to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

and

Hammond Department of Environmental Management
5925 Calumet Avenue, Room 304
Hammond, Indiana 46320

and

United States Environmental Protection Agency, Region V
Air and Radiation Division, Air Enforcement Branch - Indiana (AE-17J)
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

(b) The annual compliance certification report required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM-OAQ and HDEM on or before the date it is due.

(c) The annual compliance certification report shall include the following:

(1) The appropriate identification of each term or condition of this permit that is the basis of the certification;

(2) The compliance status;

(3) Whether compliance was continuous or intermittent;

(4) The methods used for determining compliance status of the source, currently and over the reporting period consistent with 326 IAC 2-7-5(3); and

(5) Such other facts, as specified in Sections D of this permit, as IDEM-OAQ and HDEM may require to determine the compliance status of the source.

The submittal by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

B.11 Preventive Maintenance Plan [326 IAC 2-7-5(1),(3) and (13)] [326 IAC 2-7-6(1) and (6)] [326 IAC 1-6-3]

(a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) within ninety (90) days after issuance of this permit, including the following information on each facility:

(1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;

(2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and

(3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

If, due to circumstances beyond the Permittee's control, the PMPs cannot be prepared and maintained within the above time frame, the Permittee may extend the date an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

and

Hammond Department of Environmental Management
5925 Calumet Avenue, Room 304
Hammond, Indiana 46320

The PMP and the PMP extension notification do not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(b) The Permittee shall implement the PMPs as necessary to ensure that failure to implement a PMP does not cause or contribute to a violation of any limitation on emissions or potential to emit.

(c) A copy of the PMPs shall be submitted to IDEM-OAQ and HDEM upon request and within a reasonable time, and shall be subject to review and approval by IDEM-OAQ and HDEM. IDEM-OAQ and HDEM may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or contributes to any violation. The PMP does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(d) Records of preventive maintenance shall be retained for a period of at least five (5) years. These records shall be kept at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner or HDEM makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner or HDEM within a reasonable time.

B.12 Emergency Provisions [326 IAC 2-7-16]

(a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation, except as provided in 326 IAC 2-7-16.

(b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a health-based or technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describe the following:

(1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;

(2) The permitted facility was at the time being properly operated;

(3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;

(4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM-OAQ and HDEM within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

IDEM-OAQ
Telephone Number: 1-800-451-6027 (ask for Office of Air Quality, Compliance Section), or
Telephone Number: 317-233-5674 (ask for Compliance Section)
Facsimile Number: 317-233-5967

Hammond Department of Environmental Management
Telephone Number: 219-853-6306
Facsimile Number: 219-853-6343

(5) For each emergency lasting one (1) hour or more, the Permittee submitted the attached Emergency Occurrence Report Form or its equivalent, either by mail or facsimile to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

and

Hammond Department of Environmental Management
5925 Calumet Avenue, Room 304
Hammond, Indiana 46320

within two (2) working days of the time when emission limitations were exceeded due to the emergency.

The notice fulfills the requirement of 326 IAC 2-7-5(3)(C)(ii) and must contain the following:

(A) A description of the emergency;

(B) Any steps taken to mitigate the emissions; and

(C) Corrective actions taken.

The notification which shall be submitted by the Permittee does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(6) The Permittee immediately took all reasonable steps to correct the emergency.

(c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.

(d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.

(e) IDEM-OAQ and HDEM may require that the Preventive Maintenance Plans required under 326 IAC 2-7-4-(c)(10) be revised in response to an emergency.

(f) Failure to notify IDEM-OAQ and HDEM by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-7 and any other applicable rules.

(g) Operations may continue during an emergency only if the following conditions are met:

(1) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.

(2) If an emergency situation causes a deviation from a health-based limit, the Permittee may not continue to operate the affected emissions facilities unless:

(A) The Permittee immediately takes all reasonable steps to correct the emergency situation and to minimize emissions; and

(B) Continued operation of the facilities is necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw materials of substantial economic value.

Any operation shall continue no longer than the minimum time required to prevent the situations identified in (g)(2)(B) of this condition.

B.13 Permit Shield [326 IAC 2-7-15] [326 IAC 2-7-20] [326 IAC 2-7-12]

(a) Pursuant to 326 IAC 2-7-15, the Permittee has been granted a permit shield. The permit shield provides that compliance with the conditions of this permit shall be deemed compliance with any applicable requirements as of the date of permit issuance, provided that either the applicable requirements are included and specifically identified in this

permit or the permit contains an explicit determination or concise summary of a determination that other specifically identified requirements are not applicable. The Indiana statutes from IC 13 and rules from 326 IAC, referenced in conditions in this permit, are those applicable at the time the permit was issued. The issuance or possession of this permit shall not alone constitute a defense against an alleged violation of any law, regulation or standard, except for the requirement to obtain a Part 70 permit under 326 IAC 2-7 or for applicable requirements for which a permit shield has been granted.

This permit shield does not extend to applicable requirements which are promulgated after the date of issuance of this permit unless this permit has been modified to reflect such new requirements.

(b) This permit shall be used as the primary document for determining compliance with applicable requirements established by previously issued permits. All previously issued operating permits are superceded by this permit.

(c) If, after issuance of this permit, it is determined that the permit is in nonconformance with an applicable requirement that applied to the source on the date of permit issuance, IDEM-OAQ or HDEM shall immediately take steps to reopen and revise this permit and issue a compliance order to the Permittee to ensure expeditious compliance with the applicable requirement until the permit is reissued. The permit shield shall continue in effect so long as the Permittee is in compliance with the compliance order.

(d) No permit shield shall apply to any permit term or condition that is determined after issuance of this permit to have been based on erroneous information supplied in the permit application. Erroneous information means information that the Permittee knew to be false, or in the exercise of reasonable care should have been known to be false, at the time the information was submitted.

(e) Nothing in 326 IAC 2-7-15 or in this permit shall alter or affect the following:

(1) The provisions of Section 303 of the Clean Air Act (emergency orders), including the authority of the U.S. EPA under Section 303 of the Clean Air Act;

(2) The liability of the Permittee for any violation of applicable requirements prior to or at the time of this permit's issuance;

(3) The applicable requirements of the acid rain program, consistent with Section 408(a) of the Clean Air Act; and

(4) The ability of U.S. EPA to obtain information from the Permittee under Section 114 of the Clean Air Act.

(f) This permit shield is not applicable to any change made under 326 IAC 2-7-20(b)(2) (Sections 502(b)(10) of the Clean Air Act changes) and 326 IAC 2-7-20(c)(2) (trading based on State Implementation Plan (SIP) provisions).

(g) This permit shield is not applicable to modifications eligible for group processing until after IDEM-OAQ or HDEM has issued the modifications. [326 IAC 2-7-12(c)(7)]

(h) This permit shield is not applicable to minor Part 70 permit modifications until after IDEM-OAQ or HDEM has issued the modification. [326 IAC 2-7-12(b)(7)]

B.14 Multiple Exceedances [326 IAC 2-7-5(1)(E)]

Any exceedance of a permit limitation or condition contained in this permit, which occurs contemporaneously with an exceedance of an associated surrogate or operating parameter established to detect or assure compliance with that limit or condition, both arising out of the same act or occurrence, shall constitute a single potential violation of this permit.

B.15 Deviations from Permit Requirements and Conditions [326 IAC 2-7-5(3)(C)(ii)]

(a) Deviations from any permit requirements (for emergencies see Section B - Emergency Provisions), the probable cause of such deviations, and any response steps or preventive measures taken shall be reported to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

and

Hammond Department of Environmental Management
5925 Calumet Avenue, Room 304
Hammond, Indiana 46320

using the attached Quarterly Deviation and Compliance Monitoring Report, or its equivalent. Deviations that are required to be reported by an applicable requirement shall be reported according to the schedule stated in the applicable requirement and do not need to be included in this report.

The notification by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(b) A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit or a rule. It does not include:

(1) An excursion from compliance monitoring parameters as identified in Section D of this permit unless tied to an applicable rule or limit; or

(2) Failure to implement elements of the Preventive Maintenance Plan unless such failure has caused or contributed to a deviation.

A Permittee's failure to take the appropriate response step when an excursion of a compliance monitoring parameter has occurred is a deviation.

(c) Emergencies shall be included in the Quarterly Deviation and Compliance Monitoring Report.

B.16 Permit Modification, Reopening, Revocation and Reissuance, or Termination [326 IAC 2-7-5(6)(C)] [326 IAC 2-7-8(a)] [326 IAC 2-7-9]

(a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a Part 70 permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit. [326 IAC 2-7-5(6)(C)] The

notification by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(b) This permit shall be reopened and revised under any of the circumstances listed in IC 13-15-7-2 or if IDEM-OAQ or HDEM determines any of the following:

(1) That this permit contains a material mistake.

(2) That inaccurate statements were made in establishing the emissions standards or other terms or conditions.

(3) That this permit must be revised or revoked to assure compliance with an applicable requirement. [326 IAC 2-7-9(a)(3)]

(c) Proceedings by IDEM-OAQ or HDEM to reopen and revise this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening and revision shall be made as expeditiously as practicable. [326 IAC 2-7-9(b)]

(d) The reopening and revision of this permit, under 326 IAC 2-7-9(a), shall not be initiated before notice of such intent is provided to the Permittee by IDEM-OAQ or HDEM at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM-OAQ or HDEM may provide a shorter time period in the case of an emergency. [326 IAC 2-7-9(c)]

B.17 Permit Renewal [326 IAC 2-7-4]

(a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM-OAQ and HDEM and shall include the information specified in 326 IAC 2-7-4. Such information shall be included in the application for each emission unit at this source, except those emission units included on the trivial or insignificant activities list contained in 326 IAC 2-7-1(40) and 326 IAC 2-7-1(21). The renewal application does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

Request for renewal shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

and

Hammond Department of Environmental Management
5925 Calumet Avenue, Room 304
Hammond, Indiana 46320

(b) Timely Submittal of Permit Renewal [326 IAC 2-7-4(a)(1)(D)]

(1) A timely renewal application is one that is:

(A) Submitted at least nine (9) months prior to the date of the expiration of this permit; and

(B) If the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM-OAQ and HDEM on or before the date it is due.

(2) If IDEM-OAQ and HDEM, upon receiving a timely and complete permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect, including any permit shield provided in 326 IAC 2-7-15, until the renewal permit has been issued or denied.

(c) Right to Operate After Application for Renewal [326 IAC 2-7-3]
If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-7 until IDEM-OAQ and HDEM take final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified in writing by IDEM-OAQ and HDEM, any additional information identified as being needed to process the application.

(d) United States Environmental Protection Agency Authority [326 IAC 2-7-8(e)]
If IDEM-OAQ and HDEM fails to act in a timely way on a Part 70 permit renewal, the U.S. EPA may invoke its authority under Section 505(e) of the Clean Air Act to terminate or revoke and reissue a Part 70 permit.

B.18 Permit Amendment or Modification [326 IAC 2-7-11] [326 IAC 2-7-12]

(a) Permit amendments and modifications are governed by the requirements of 326 IAC 2-7-11 or 326 IAC 2-7-12 whenever the Permittee seeks to amend or modify this permit.

(b) Any application requesting an amendment or modification of this permit shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

and

Hammond Department of Environmental Management
5925 Calumet Avenue, Room 304
Hammond, Indiana 46320

Any such application should be certified by the "responsible official" as defined by 326 IAC 2-7-1(34).

(c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-7-11(c)(3)]

B.19 Permit Revision Under Economic Incentives and Other Programs [326 IAC 2-7-5(8)] [326 IAC 2-7-12 (b)(2)]

(a) No Part 70 permit revision shall be required under any approved economic incentives, marketable Part 70 permits, emissions trading, and other similar programs or processes for changes that are provided for in a Part 70 permit.

(b) Notwithstanding 326 IAC 2-7-12(b)(1)(D)(i) and 326 IAC 2-7-12(c)(1), minor Part 70 permit modification procedures may be used for Part 70 modifications involving the use of economic incentives, marketable Part 70 permits, emissions trading, and other similar approaches to the extent that such minor Part 70 permit modification procedures are explicitly provided for in the applicable State Implementation Plan (SIP) or in applicable requirements promulgated or approved by the U.S. EPA.

B.20 Operational Flexibility [326 IAC 2-7-20] [326 IAC 2-7-10.5]

(a) The Permittee may make any change or changes at the source that are described in 326 IAC 2-7-20(b), (c), or (e), without a prior permit revision, if each of the following conditions is met:

(1) The changes are not modifications under any provision of Title I of the Clean Air Act;

(2) Any preconstruction approval required by 326 IAC 2-7-10.5 has been obtained;

(3) The changes do not result in emissions which exceed the emissions allowable under this permit (whether expressed herein as a rate of emissions or in terms of total emissions);

(4) The Permittee notifies the:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

and

Hammond Department of Environmental Management
5925 Calumet Avenue, Room 304
Hammond, Indiana 46320

and

United States Environmental Protection Agency, Region V
Air and Radiation Division, Regulation Development Branch - Indiana (AR-18J)
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

in advance of the change by written notification at least ten (10) days in advance of the proposed change. The Permittee shall attach every such notice to the Permittee's copy of this permit; and

(5) The Permittee maintains records on site which document, on a rolling five (5) year basis, all such changes and emissions trading that are subject to 326 IAC 2-7-20(b), (c), or (e) and makes such records available, upon reasonable request, for public review.

Such records shall consist of all information required to be submitted to IDEM-OAQ and HDEM in the notices specified in 326 IAC 2-7-20(b), (c)(1), and (e)(2).

(b) The Permittee may make Section 502(b)(10) of the Clean Air Act changes (this term is defined at 326 IAC 2-7-1(36)) without a permit revision, subject to the constraint of 326 IAC 2-7-20(a).

For each such Section 502(b)(10) of the Clean Air Act change, the required written notification shall include the following:

(1) A brief description of the change within the source;

(2) The date on which the change will occur;

(3) Any change in emissions; and

(4) Any permit term or condition that is no longer applicable as a result of the change.

The notification which shall be submitted is not considered an application form, report or compliance certification. Therefore, the notification by the Permittee does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(c) Emission Trades [326 IAC 2-7-20(c)]
The Permittee may trade increases and decreases in emissions in the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-7-20(c).

(d) Alternative Operating Scenarios [326 IAC 2-7-20(d)]
The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-7-5(9). No prior notification to IDEM-OAQ or U.S. EPA is required.

B.21 Source Modification Requirement [326 IAC 2-7-10.5]

A modification, construction, or reconstruction is governed by 326 IAC 2 and 326 IAC 2-7-10.5.

B.22 Inspection and Entry [326 IAC 2-7-6] [IC 13-14-2-2]

Upon presentation of proper identification cards, credentials, and other documents as may be required by law, and subject to the Permittee's right under all applicable laws and regulations to assert that the information collected by the agency is confidential and entitled to be treated as such, the Permittee shall allow IDEM-OAQ, HDEM, U.S. EPA, or an authorized representative to perform the following:

(a) Enter upon the Permittee's premises where a Part 70 source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;

(b) Have access to and copy, any records that must be kept under the conditions of this permit;

(c) Inspect, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;

(d) Sample or monitor, substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and

(e) Utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

B.23 Transfer of Ownership or Operational Control [326 IAC 2-7-11]

(a) The Permittee must comply with the requirements of 326 IAC 2-7-11 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.

(b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

and

Hammond Department of Environmental Management
5925 Calumet Avenue, Room 304
Hammond, Indiana 46320

The application which shall be submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-7-11(c)(3)]

B.24 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-7-5(7)]

(a) The Permittee shall pay annual fees to IDEM-OAQ and HDEM within thirty (30) calendar days of receipt of a billing. Pursuant to 326 IAC 2-7-19(b), if the Permittee does not receive a bill from IDEM-OAQ or HDEM, the applicable fee is due April 1 of each year.

(b) Except as provided in 326 IAC 2-7-19(e), failure to pay may result in administrative enforcement action or revocation of this permit.

(c) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-0425 (ask for OAQ, Technical Support and Modeling Section), to determine the appropriate permit fee.

SECTION C SOURCE OPERATION CONDITIONS

Entire Source

Emission Limitations and Standards [326 IAC 2-7-5(1)]

C.1 Opacity [326 IAC 5-1]

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

(a) Opacity shall not exceed an average of twenty percent (20%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

C.2 Open Burning [326 IAC 4-1] [IC 13-17-9]

The Permittee shall not open burn any material except as provided in 326 IAC 4-1-3, 326 IAC 4-1-4 or 326 IAC 4-1-6. The previous sentence notwithstanding, the Permittee may open burn in accordance with an open burning approval issued by the Commissioner under 326 IAC 4-1-4.1. 326 IAC 4-1-3 (a)(2)(A) and (B) are not federally enforceable.

C.3 Incineration [326 IAC 4-2] [326 IAC 9-1-2]

The Permittee shall not operate an incinerator or incinerate any waste or refuse except as provided in 326 IAC 4-2 and 326 IAC 9-1-2. 326 IAC 9-1-2 is not federally enforceable.

C.4 Fugitive Dust Emissions [326 IAC 6-4]

The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions). 326 IAC 6-4-2(4) is not federally enforceable.

C.5 Lake County Particulate Matter Contingency Measures [326 IAC 6-1-11.2]

The Permittee shall comply with the applicable provisions of 326 IAC 6-1-11.2 (Lake County Particulate Matter Contingency Measures).

C.6 Operation of Equipment [326 IAC 2-7-6(6)]

Except as otherwise provided by statute, rule, or in this permit, all air pollution control equipment listed in this permit and used to comply with an applicable requirement shall be operated at all times that the emission units vented to the control equipment are in operation.

C.7 Stack Height [326 IAC 1-7]

The Permittee shall comply with the applicable provisions of 326 IAC 1-7 (Stack Height Provisions), for all exhaust stacks through which a potential (before controls) of twenty-five (25) tons per year or more of particulate matter or sulfur dioxide is emitted. The provisions of 326 IAC

1-7-2, 326 IAC 1-7-3(c) and (d), 326 IAC 1-7-4(d)(3), (e), and (f), and 326 IAC 1-7-5(d) are not federally enforceable.

C.8 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

(a) Notification requirements apply to each owner or operator. If the combined amount of regulated asbestos containing material (RACM) to be stripped, removed or disturbed is at least 260 linear feet on pipes or 160 square feet on other facility components, or at least thirty-five (35) cubic feet on all facility components, then the notification requirements of 326 IAC 14-10-3 are mandatory. All demolition projects require notification whether or not asbestos is present.

(b) The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:

(1) When the amount of affected asbestos containing material increases or decreases by at least twenty percent (20%); or

(2) If there is a change in the following:

(A) Asbestos removal or demolition start date;

(B) Removal or demolition contractor; or

(C) Waste disposal site.

(c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).

(d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

Indiana Department of Environmental Management
Asbestos Section, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

and

Hammond Department of Environmental Management
5925 Calumet Avenue, Room 304
Hammond, Indiana 46320

The notifications do not require a certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(e) Procedures for Asbestos Emission Control
The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-4, emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on

pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.

(f) Indiana Accredited Asbestos Inspector
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Accredited Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement that the inspector be accredited, pursuant to the provisions of 40 CFR 61, Subpart M, is federally enforceable.

Testing Requirements [326 IAC 2-7-6(1)]

C.9 Performance Testing [326 IAC 3-6]

(a) All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM-OAQ.

A test protocol, except as provided elsewhere in this permit, shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

and

Hammond Department of Environmental Management
5925 Calumet Avenue, Room 304
Hammond, Indiana 46320

no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(b) The Permittee shall notify IDEM-OAQ and HDEM of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM-OAQ and HDEM not later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM-OAQ and HDEM, if the source submits to IDEM-OAQ and HDEM, a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

Compliance Requirements [326 IAC 2-1.1-11]

C.10 Compliance Requirements [326 IAC 2-1.1-11]

The commissioner may require stack testing, monitoring, or reporting at any time to assure compliance with all applicable requirements. Any monitoring or testing shall be performed in accordance with 326 IAC 3 or other methods approved by the commissioner or the U. S. EPA.

Compliance Monitoring Requirements [326 IAC 2-7-5(1)] [326 IAC 2-7-6(1)]

C.11 Compliance Monitoring [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]

Unless otherwise specified in this permit, all monitoring and record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance. If required by Section D, the Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment. If due to circumstances beyond its control, that equipment cannot be installed and operated within ninety (90) days, the Permittee may extend the compliance schedule related to the equipment for an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

and

Hammond Department of Environmental Management
5925 Calumet Avenue, Room 304
Hammond, Indiana 46320

in writing, prior to the end of the initial ninety (90) day compliance schedule, with full justification of the reasons for the inability to meet this date.

The notification which shall be submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

Unless otherwise specified in the approval for the new emission units, compliance monitoring for new emission units or emission units added through a source modification shall be implemented when operation begins.

C.12 Continuous Compliance Plan [326 IAC 6-1-10.1(l))]
Pursuant to 326 IAC 6-1-10.1(l) (Lake County PM10 Emission Requirements), the Permittee shall submit to IDEM-OAQ and HDEM, and maintain at the source a copy of the Continuous Compliance Plan (CCP) as specified in 326 IAC 6-1-10.1(m) through (o). The Permittee shall perform the inspections, monitoring, and record keeping requirements as specified in 326 IAC 6-1-10.1(p) through (r) or according to the Permittee's CCP. The Permittee shall also revise and update the CCP as specified in 326 IAC 6-1-10.1(s) through (v).

C.13 Maintenance of Emission Monitoring Equipment [326 IAC 2-7-5(3)(A)(iii)]

(a) In the event that a breakdown of the emission monitoring equipment occurs, a record shall be made of the times and reasons of the breakdown and efforts made to correct the problem. To the extent practicable, supplemental or intermittent monitoring of the parameter should be implemented at intervals no less frequent than required in Section D of this permit until such time as the monitoring equipment is back in operation. In the case of continuous monitoring, supplemental or intermittent monitoring of the parameter should be implemented at intervals no less often than once an hour until such time as the continuous monitor is back in operation.

(b) The Permittee shall install, calibrate, quality-assure, maintain, and operate all necessary monitors and related equipment. In addition, prompt corrective action shall be initiated whenever indicated.

C.14 Monitoring Methods [326 IAC 3] [40 CFR 60] [40 CFR 63]

Any monitoring or testing required by Section D of this permit shall be performed according to the provisions of 326 IAC 3, 40 CFR 60, Appendix A, 40 CFR 60 Appendix B, 40 CFR 63,or other approved methods as specified in this permit.

C.15 Pressure Gauge and Other Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-7-5(3) [326 IAC 2-7-6(1)

(a) Whenever a condition in this permit requires the measurement of pressure drop across any part of the unit or its control device, the gauge employed shall have a scale such that the expected normal reading shall be no less than twenty percent (20%) of full scale and be accurate within plus or minus two percent (±2%) of full scale reading.

(b) The Permittee may request the IDEM-OAQ approve the use of a pressure gauge or other instrument that does not meet the above specifications provided the Permittee can demonstrate an alternative pressure gauge or other instrument specification will adequately ensure compliance with permit conditions requiring the measurement of pressure drop or other parameters.

Corrective Actions and Response Steps [326 IAC 2-7-5] [326 IAC 2-7-6]

C.16 Emergency Reduction Plans [326 IAC 1-5-2] [326 IAC 1-5-3]

Pursuant to 326 IAC 1-5-2 (Emergency Reduction Plans; Submission):

(a) The Permittee prepared and submitted written emergency reduction plans (ERPs) consistent with safe operating procedures on December 6, 2000.

(b) If the ERP is disapproved by IDEM-OAQ, and HDEM, the Permittee shall have an additional thirty (30) days to resolve the differences and submit an approvable ERP.

(c) Upon direct notification by IDEM-OAQ, and HDEM, that a specific air pollution episode level is in effect, the Permittee shall immediately put into effect the actions stipulated in the approved ERP for the appropriate episode level.
[326 IAC 1-5-3]

C.17 Risk Management Plan [326 IAC 2-7-5(12)] [40 CFR 68.215]

If a regulated substance, subject to 40 CFR 68, is present at a source in more than a threshold quantity, 40 CFR 68 is an applicable requirement and the Permittee shall submit:

(a) A compliance schedule for meeting the requirements of 40 CFR 68; or

(b) As a part of the annual compliance certification submitted under 326 IAC 2-7-6(5), a certification statement that the source is in compliance with all the requirements of 40 CFR 68, including the registration and submission of a Risk Management Plan (RMP); and

(c) A verification to IDEM-OAQ and HDEM that a RMP or a revised plan was prepared and submitted as required by 40 CFR 68.

All documents submitted pursuant to this condition shall include the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

C.18 Compliance Monitoring Plan - Failure to Take Response Steps [326 IAC 2-7-5] [326 IAC 2-7-6]

(a) The Permittee is required to implement a compliance monitoring plan to ensure that reasonable information is available to evaluate its continuous compliance with applicable requirements. The compliance monitoring plan can be either an entirely new document, consist in whole of information contained in other documents, or consist of a combination of new information and information contained in other documents. If the compliance monitoring plan incorporates by reference information contained in other documents, the Permittee shall identify as part of the compliance monitoring plan the documents in which the information is found. The elements of the compliance monitoring plan are:

(1) This condition;

(2) The Compliance Determination Requirements in Section D of this permit;

(3) The Compliance Monitoring Requirements in Section D of this permit;

(4) The Record Keeping and Reporting Requirements in Section C (Monitoring Data Availability, General Record Keeping Requirements, and General Reporting Requirements) and in Section D of this permit; and

(5) A Compliance Response Plan (CRP) for each compliance monitoring condition of this permit. CRPs shall be submitted to IDEM-OAQ and HDEM, upon request, and shall be subject to review and approval by IDEM-OAQ and HDEM. The CRP shall be prepared within ninety (90) days after issuance of this permit by the Permittee and maintained on site, and is comprised of:

(A) Reasonable response steps that may be implemented in the event that compliance related information indicates that a response step is needed pursuant to the requirements of Section D of this permit; and

(B) A time schedule for taking reasonable response steps including a schedule for devising additional response steps for situations that may not have been predicted.

(b) For each compliance monitoring condition of this permit, reasonable response steps shall be taken when indicated by the provisions of that compliance monitoring condition. Failure to take reasonable response steps may constitute a violation of the permit.

(c) Upon investigation of a compliance monitoring excursion, the Permittee is excused from taking further response steps for any of the following reasons:

(1) A false reading occurs due to the malfunction of the monitoring equipment. This shall be an excuse from taking further response steps providing that prompt action was taken to correct the monitoring equipment.

(2) The Permittee has determined that the compliance monitoring parameters established in the permit conditions are technically inappropriate, has previously submitted a request for an administrative amendment to the permit, and such request has not been denied.

(3) An automatic measurement was taken when the process was not operating.

(4) The process has already returned or is returning to operating within “normal” parameters and no response steps are required.

(d) Records shall be kept of all instances in which the compliance related information was not met and of all response steps taken. In the event of an emergency, the provisions of 326 IAC 2-7-16 (Emergency Provisions) requiring prompt corrective action to mitigate emissions shall prevail.

(e) All monitoring required in Section D shall be performed at all times the equipment is operating. If monitoring is required by Section D and the equipment is not operating, then the Permittee may record the fact that the equipment is not operating or perform the required monitoring.

(f) At its discretion, IDEM and HDEM may excuse the Permittee's failure to perform the monitoring and record keeping as required by Section D, if the Permittee provides adequate justification and documents that such failures do not exceed five percent (5%) of the operating time in any quarter. Temporary, unscheduled unavailability of qualified staff shall be considered a valid reason for failure to perform the monitoring or record keeping requirements in Section D.

C.19 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-7-5] [326 IAC 2-7-6]

(a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall take appropriate response actions. The Permittee shall submit a description of these response actions to IDEM-OAQ and HDEM within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize excess emissions from the affected facility while the response actions are being implemented.

(b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM-OAQ and HDEM that retesting in one-hundred and twenty (120) days is not practicable, IDEM-OAQ and HDEM may extend the retesting deadline.

(c) IDEM-OAQ and HDEM reserve the authority to take any actions allowed under law in response to noncompliant stack tests.

The documents submitted pursuant to this condition do not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

C.20 Emission Statement [326 IAC 2-7-5(3)(C)(iii)] [326 IAC 2-7-5(7)] [326 IAC 2-7-19(c)] [326 IAC 2-6]

(a) The Permittee shall submit an annual emission statement certified pursuant to the requirements of 326 IAC 2-6, that must be received by April 15 of each year and must comply with the minimum requirements specified in 326 IAC 2-6-4. The annual emission statement shall meet the following requirements:

(1) Indicate estimated actual emissions of criteria pollutants from the source, in compliance with 326 IAC 2-6 (Emission Reporting);

(2) Indicate estimated actual emissions of other regulated pollutants (as defined by 326 IAC 2- 7-1) from the source, for purposes of Part 70 fee assessment.

(b) The annual emission statement covers the twelve (12) consecutive month time period starting December 1 and ending November 30. The annual emission statement must be submitted to:

Indiana Department of Environmental Management
Technical Support and Modeling Section, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

and

Hammond Department of Environmental Management
5925 Calumet Avenue, Room 304
Hammond, Indiana 46320

The emission statement does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(c) The annual emission statement required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM-OAQ and HDEM on or before the date it is due.

C.21 General Record Keeping Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-6]

(a) Records of all required data, reports and support information shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be kept at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner or HDEM makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner or HDEM within a reasonable time.

(b) Unless otherwise specified in this permit, all record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.

C.22 General Reporting Requirements [326 IAC 2-7-5(3)(C)] [326 IAC 2-1.1-11]

(a) The source shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported. This report shall be submitted within thirty (30) days of the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(b) The report required in (a) of this condition and reports required by conditions in Section D of this permit shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

and

Hammond Department of Environmental Management
5925 Calumet Avenue, Room 304
Hammond, Indiana 46320

(c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM-OAQ and HDEM on or before the date it is due.

(d) Unless otherwise specified in this permit, any quarterly report required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. All reports do require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(e) The first report shall cover the period commencing on the date of issuance of this permit and ending on the last day of the reporting period. Reporting periods are based on calendar years.

Stratospheric Ozone Protection

C.23 Compliance with 40 CFR 82 and 326 IAC 22-1

Pursuant to 40 CFR 82 (Protection of Stratospheric Ozone), Subpart F, except as provided for motor vehicle air conditioners in Subpart B, the Permittee shall comply with the standards for recycling and emissions reduction:

(a) Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to 40 CFR 82.156.

(b) Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158.

(c) Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.

SECTION D.1 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]:

Raw Material Processing Department

A) Magnesite processing, consisting of the following emission units:

a. Magnesite Handling & Storage – East Silos

i. Equipment for unloading and initial screening of magnesite. Also includes equipment for conveying fine magnesite fractions to the east storage silos, identified as PD-2, constructed in 1993, with a maximum process rate of 35.0 tons per hour, using a baghouse as control, and exhausting to stack D-2.

b. Magnesite Handling & Storage – West Silos

i. Equipment for conveying coarse magnesite fractions to the west storage silos, identified as PD-11, constructed in 1992, at a maximum rate of 20 tons per hour, using a baghouse as control, and exhausting to stack D-11.

c. Oversize Magnesite Crushing

i. Equipment for crushing oversize magnesite, screening and conveying to respective east or west storage silos, identified as PD-18, constructed in 1971, at a maximum rate of 35.0 tons per hour, using a baghouse as control, and exhausting to stack D-18.

d. Magnesite Classifying & Conveying to Storage Bins

i. Equipment for screening, milling, and conveying magnesite from the east silos to storage bins for batching. Identified as PD-8(1), PD-8(2), and PD-8(3), constructed in 1956, at a maximum rate of 25.0 tons per hour, 8.3 tons per hour and 25.0 tons per hour, respectively, using a baghouse as control, and exhausting to stack D-8.

ii. Equipment for screening, milling, and conveying magnesite from the west silos to storage bins for batching. Identified as PD-13(1), PD-13(2), and PD-13(3), constructed in 1956, at a maximum rate of 16.0 tons per hour, 6.0 tons per hour, and 16.0 tons per hour respectively, using a baghouse as control, and exhausting to stack D-13.

B) Brick (Bats) crushing, consisting of the following emission units:

a. Recycled refractory material and magnesite crushing and screening operations, identified as PD-9, constructed in 1956, at a maximum rate of 20.0 tons per hour, using a baghouse as control, and exhausting to stack D-9.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.1.1 Lake County PM_{10} emission requirements [326 IAC 6-1-10.1(d)]

Pursuant to 326 IAC 6-1-10.1(d), the PM10 from the Raw Material Processing Department emission units shall not exceed the pounds per hour emission rate shown as follows:

Emission Unit Description	Emission Unit ID #	PM_{10} Emission Limit (lbs/Ton)	PM_{10} Emission Limit (lbs/hr)
Magnesite Handling & Storage – East Silos	PD-2	0.012	0.41
Magnesite Handling & Storage – West Silos	PD-11	0.020	0.41
Oversize Magnesite Crushing	PD-18	0.017	0.58
Magnesite Classifying & Conveying to Storage Bins	PD-8(1), PD-8(2) and PD-8(3)	0.051	1.28
Magnesite Classifying & Conveying to Storage Bins	PD-13(1), PD-13(2), and PD-13(3)	0.044	0.70
Brick (Bats) crushing, Recycle refractory material and magnesite screening and crushing operations	PD-9	0.024	0.49

D.1.2 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for these facilities and any control devices.

Compliance Determination Requirements

D.1.3 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

During the period between 30 and 36 months after issuance of this permit, in order to demonstrate compliance with Condition D.1.1, the Permittee shall perform PM-10 testing for the Magnesite Handling & Storage East and West Silos and Oversize Magnesite Crushing (Emission Units PD-2, PD-11, and PD-18) stacks D-2, D-11, and D-18 utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. PM-10 includes filterable and condensible PM-10. Testing shall be conducted in accordance with Section C- Performance Testing.

D.1.4 Particulate Matter less than 10 microns (PM10)

In order to comply with Condition D.1.1, the PM10 control devices shall be in operation and control emissions from the Emission Units PD-2, PD-11, PD-18, PD-8, PD-13, and PD-9 at all times when the emission units are in operation.

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

D.1.5 Visible Emissions Notations

(a) Visible emission notations of the Raw Material Processing Department equipment (Emission Units PD-2, PD-11, PD-18, PD-8, PD-13, and PD-9) stacks exhaust shall be performed once per shift during normal daylight operations when these units are in operation. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) The Compliance Response Plan for these units shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C – Compliance Monitoring Plan – Failure to Take Response Steps, shall be considered a violation of this permit.

D.1.6 Parametric Monitoring

The Permittee shall record the total static pressure drop across the baghouse used in conjunction with the Raw Material Processing Department operations (Emission Units PD-2, PD-11, PD-18, PD-8, PD-13, and PD-9) at least once per shift when the Raw Material Processing Department equipment is in operation. Unless operated under conditions for which the Compliance Response Plan specifies otherwise, the pressure drop across the baghouse shall be maintained within the range of 2.0 and 8.0 inches of water or a range established during the latest stack test. The Compliance Response Plan for these units shall contain troubleshooting contingency and response steps for when the pressure reading is outside of the above-mentioned range for any one reading. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan – Failure to Take Response Steps, shall be considered a violation of this permit.

The instrument used for determining the pressure shall comply with Section C - Pressure Gauge and Other Instrument Specifications, of this permit, shall be subject to approval by IDEM-OAQ and HDEM, and shall be calibrated at least once every six (6) months.

D.1.7 Baghouse Inspections

An inspection shall be performed each calendar quarter of all bags controlling the operations when venting to the atmosphere. A baghouse inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting to the indoors. All defective bags shall be replaced.

D.1.8 Broken or Failed Bag Detection

In the event that bag failure has been observed:

(a) For multi-compartment units, the affected compartments shall be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if there are no visible emissions or if the event qualifies as an emergency and the Permittee satisfies the emergency provisions of this permit (Section B – Emergency Provisions). Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan – Failure to Take Response Steps, shall be considered a violation of this permit.

(b) For single compartment baghouses, failed units and the associated process shall be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

Record Keeping and Reporting Requirement [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.1.9 Record Keeping Requirements

(a) To document compliance with Condition D.1.5, the Permittee shall maintain records of daily visible emission notations of the Raw Material Processing Department equipment (Emission Units PD-2, PD-11, PD-18, PD-8, PD-13, and PD-9) stack exhaust.

(b) To document compliance with Condition D.1.6, the Permittee shall maintain the following:

(1) Once per shift records of the following operational parameters during normal operation when venting to the atmosphere:

(A) Inlet and outlet differential static pressure; and

(B) Cleaning cycle operation.

(c) To document compliance with Condition D.1.7, the Permittee shall maintain records of the results of the inspections required under Condition D.1.7.

(d) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

SECTION D.2 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]:

Mixing Department

Mixing Equipment, consisting of the following emission units:

a. Three (3) RV-15 Mixers of resin-bonded refractory materials, consisting of the following emission units:

   i. RV-15 Mixers #1 and #2, identified as PD-12B (constructed in 1984) and PD-12C (constructed in 1988), each with a maximum capacity of 4.25 tons per hour, using separate baghouses as control, and exhausting to a common stack D-21.

   ii. RV-15 Mixer #3, identified as PD-12D, constructed in 1993, with a maximum capacity of 4.25 tons per hour, using a baghouse as control, and exhausting to stack D-12D.

b. DE-18 Flat Mixer, Mixer #4, identified as PD-14, constructed in 1993, with a maximum capacity of 11.2 tons per hour, using a baghouse as control, and exhausting to stack D-14.

c. DEV-22 Mixer, Mixer #5, identified as PD-4, constructed in 1996, with a maximum capacity of 11.2 tons per hour, using a baghouse as control, and exhausting to stack D-4.

d. Simpson Mixer #2, identified as PD-5, constructed in 1956, with a maximum capacity of 11.2 tons per hour, using a baghouse as control, and exhausting to stack D-5.

e. Simpson Mixer #3, identified as PD-6, constructed in 1956, with a maximum capacity of 11.2 tons per hour, using a baghouse as control, and exhausting to stack D-6.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.2.1 Lake County PM_{10} emission requirements [326 IAC 6-1-10.1(d)]

Pursuant to 326 IAC 6-1-10.1(d), the PM10 from the Mixing Department emission units shall not exceed the pounds per hour emission rate shown as follows:

Emission Unit Description	Emission Unit ID #	PM_{10} Emission Limit (lbs/Ton)	PM_{10} Emission Limit (lbs/hr)
RV-15 Mixers #1 and #2	PD-12B and PD-12C with common stack D-21	0.018	0.15 per dust collector, 0.30 at stack
RV-15 Mixer #3	PD-12D	0.018	0.15
DE-18 Flat Mixer, Mixer #4	PD-14	0.0165	0.23
DEV-22 Mixer, Mixer #5	PD-4	0.033	0.23
Simpson Mixer #2	PD-5	0.0165	0.23
Simpson Mixer #3	PD-6	0.033	0.23

D.2.2 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for these facilities and any control devices.

Compliance Determination Requirements

D.2.3 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

The commissioner may require stack testing, monitoring, or reporting at any time to assure compliance with all applicable requirements. Any monitoring or testing shall be performed in accordance with 326 IAC 3 or other methods approved by the commissioner or the U. S. EPA.

D.2.4 Particulate Matter less than 10 microns (PM10)

In order to comply with Condition D.2.1, the PM10 control devices shall be in operation and control emissions from the Emission Units PD-12B, PD-12C, PD-12D, PD-14, PD-4, PD-5, and PD-6, at all times when the emission units are in operation.

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

D.2.5 Visible Emissions Notations

(a) Visible emission notations of the Mixing Department equipment (Emission Units PD-12B and PD-12C (common stack D-21), PD-12D, PD-14, PD-4, PD-5, and PD-6) stacks exhaust shall be performed once per shift during normal daylight operations when these units are in operation. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) The Compliance Response Plan for these units shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C – Compliance Monitoring Plan – Failure to Take Response Steps, shall be considered a violation of this permit.

D.2.6 Parametric Monitoring

The Permittee shall record the total static pressure drop across the baghouse used in conjunction with the Mixing Department operations (Emission Units PD-12B, PD-12C, PD-12D, PD-14, PD-4, PD-5, and PD-6) at least once per shift when the Mixing Department equipment is in operation. Unless operated under conditions for which the Compliance Response Plan specifies otherwise, the pressure drop across the baghouse shall be maintained within the range of 2.0 and 8.0 inches of water or a range established during the latest stack test. The Compliance Response Plan for these units shall contain troubleshooting contingency and response steps for when the pressure reading is outside of the above-mentioned range for any one reading. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan – Failure to Take Response Steps, shall be considered a violation of this permit.

The instrument used for determining the pressure shall comply with Section C - Pressure Gauge and Other Instrument Specifications, of this permit, shall be subject to approval by IDEM-OAQ and HDEM, and shall be calibrated at least once every six (6) months.

D.2.7 Baghouse Inspections

An inspection shall be performed each calendar quarter of all bags controlling the operations when venting to the atmosphere. A baghouse inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting to the indoors. All defective bags shall be replaced.

D.2.8 Broken or Failed Bag Detection

In the event that bag failure has been observed:

(a) For multi-compartment units, the affected compartments shall be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if there are no visible emissions or if the event qualifies as an emergency and the Permittee satisfies the emergency provisions of this permit (Section B – Emergency Provisions). Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan – Failure to Take Response Steps, shall be considered a violation of this permit.

(b) For single compartment baghouses, failed units and the associated process shall be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

Record Keeping and Reporting Requirement [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.2.9 Record Keeping Requirements

(a) To document compliance with Condition D.2.5, the Permittee shall maintain records of daily visible emission notations of the Mixing Department equipment (Emission Units PD-12B and PD-12C (common stack D-21), PD-12D, PD-14, PD-4, PD-5, and PD-6) stack exhaust.

(b) To document compliance with Condition D.2.6, the Permittee shall maintain the following:

(1) Once per shift records of the following operational parameters during normal operation when venting to the atmosphere:

(A) Inlet and outlet differential static pressure; and

(B) Cleaning cycle operation.

(c) To document compliance with Condition D.2.7, the Permittee shall maintain records of the results of the inspections required under Condition D.2.7.

(d) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

SECTION D.3 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]:

Batching Department

Material transport operations, consisting of the following emission units:

a. Material Receiving Vessel, identified as PD-12E, constructed in 1993, with a maximum capacity of 18.0 tons per hour, using a baghouse as control, and exhausting to stack D-12E.

b. Minor Additive Transport Operations, identified as PD-20, constructed in 1993, with a maximum capacity of 0.75 tons per hour, using a baghouse as control, and exhausting to stack D-20.

c. Graphite Transport Operations, identified as PD-19, constructed in 1993, with a maximum capacity of 6.0 tons per hour, using a baghouse as control, and exhausting to stack D-19.

d. Batch Station Transport Operations, identified as PD-22, constructed in 1996, with a maximum capacity of 14.0 tons per hour, using a baghouse as control, and exhausting to stack D-22.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.3.1 Hammond Air Quality Control Ordinance No. 3522 (as amended)

Pursuant to the Hammond Air Quality Control Ordinance No. 3522 (as amended), the PM_{10} from the following emission units shall not exceed the pounds per hour emission rates listed below:

Emission Unit Description	Emission Unit ID #	PM_{10} Emission Limit (lbs/hr)
Batch material receiving vessel vent	PD-12E	0.0135
Minor additives transport operations	PD-20	0.0006
Graphite transport operations	PD-19	0.005
Batch station transport operations	PD-22	0.0105

Hammond Air Quality Control Ordinance No. 3522 (as amended) is not state or federally enforceable.

D.3.2 Nonattainment Area Particulate Limitations [326 IAC 6-1-2(a)]

Pursuant to 326 IAC 6-1-2(a) (Nonattainment Area Particulate Limitations), the PM from the Batching Department emission units shall be limited to 0.03 grain per dry standard cubic foot.

Emission Unit Description	Emission Unit ID #	PM Emission Limit (lbs/hr)
Batch material receiving vessel vent	PD-12E	0.0761
Minor additives transport operations	PD-20	0.0254
Graphite transport operations	PD-19	0.1514
Batch station transport operations	PD-22	0.2284

D.3.3 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for these facilities and any control devices.

Compliance Determination Requirements

D.3.4 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

The commissioner may require stack testing, monitoring, or reporting at any time to assure compliance with all applicable requirements. Any monitoring or testing shall be performed in accordance with 326 IAC 3 or other methods approved by the commissioner or the U. S. EPA.

D.3.5 Particulate Matter less than 10 microns and Particulate Matter (PM10 and PM)

In order to comply with Condition D.3.1 and D.3.2, the PM10 and PM control devices shall be in operation and control emissions from the Emission Units PD-12E, PD-20, PD-19, and PD-22 at all times when the emission units are in operation.

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

D.3.6 Visible Emissions Notations

(a) Visible emission notations of the Batching Department equipment (Emission Units PD-12E, PD-20, PD-19, and PD-22) stacks exhaust shall be performed once per shift during normal daylight operations when these units are in operation. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) The Compliance Response Plan for these units shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C – Compliance Monitoring Plan – Failure to Take Response Steps, shall be considered a violation of this permit.

D.3.7 Parametric Monitoring

The Permittee shall record the total static pressure drop across the baghouse used in conjunction with the Batching Department operations (Emission Units PD-12E, PD-20, PD-19, and PD-22) at least once per shift when the Batching Department equipment is in operation. Unless operated under conditions for which the Compliance Response Plan specifies otherwise, the pressure drop across the baghouse shall be maintained within the range of 2.0 and 8.0 inches of water or a range established during the latest stack test. The Compliance Response Plan for these units shall contain troubleshooting contingency and response steps for when the pressure reading is outside of the above-mentioned range for any one reading. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan – Failure to Take Response Steps, shall be considered a violation of this permit.

The instrument used for determining the pressure shall comply with Section C - Pressure Gauge and Other Instrument Specifications, of this permit, shall be subject to approval by IDEM-OAQ and HDEM, and shall be calibrated at least once every six (6) months.

D.3.8 Baghouse Inspections

An inspection shall be performed each calendar quarter of all bags controlling the operations when venting to the atmosphere. A baghouse inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting to the indoors. All defective bags shall be replaced.

D.3.9 Broken or Failed Bag Detection

In the event that bag failure has been observed:

(a) For multi-compartment units, the affected compartments shall be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if there are no visible emissions or if the event qualifies as an emergency and the Permittee satisfies the emergency provisions of this permit (Section B – Emergency Provisions). Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan – Failure to Take Response Steps, shall be considered a violation of this permit.

(b) For single compartment baghouses, failed units and the associated process shall be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

Record Keeping and Reporting Requirement [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.3.10 Record Keeping Requirements

(a) To document compliance with Condition D.3.6, the Permittee shall maintain records of daily visible emission notations of the Batching Department equipment (Emission Units PD-12E, PD-20, PD-19, and PD-22) stack exhaust.

(b) To document compliance with Condition D.3.7, the Permittee shall maintain the following:

(1) Once per shift records of the following operational parameters during normal operation when venting to the atmosphere:

(A) Inlet and outlet differential static pressure; and

(B) Cleaning cycle operation.

(c) To document compliance with Condition D.3.8, the Permittee shall maintain records of the results of the inspections required under Condition D.3.8.

(d) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

SECTION D.4 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]:

Pressing Department, consisting of the following emission units:

Resin-bonded materials handling, batching and pressing, identified as PD-12A, constructed in 1996, with a maximum capacity of 10.9 tons per hour, using a baghouse as control, and exhausting to stack D-12A.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.4.1 Lake County PM_{10} emission requirements [326 IAC 6-1-10.1(d)]

Pursuant to 326 IAC 6-1-10.1(d), the PM10 from the Pressing Department emission unit shall not exceed the pounds per hour emission rate shown as follows:

Emission Unit Description	Emission Unit ID #	PM_{10} Emission Limit (lbs/Ton)	PM_{10} Emission Limit (lbs/hr)
Resin-bonded materials handling, batching and pressing	PD-12A	0.25	0.93

D.4.2 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for this facility and any control devices.

Compliance Determination Requirements

D.4.3 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

The commissioner may require stack testing, monitoring, or reporting at any time to assure compliance with all applicable requirements. Any monitoring or testing shall be performed in accordance with 326 IAC 3 or other methods approved by the commissioner or the U. S. EPA.

D.4.4 Particulate Matter less than 10 microns (PM10)

In order to comply with Condition D.4.1, the PM10 control device shall be in operation and control emissions from the Emission Unit PD-12A at all times when the emission unit is in operation.

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

D.4.5 Visible Emissions Notations

(a) Visible emission notations of the Pressing Department equipment (Emission Unit PD-12A) stack exhaust shall be performed once per shift during normal daylight operations when this unit is in operation. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) The Compliance Response Plan for these units shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C – Compliance Monitoring Plan – Failure to Take Response Steps, shall be considered a violation of this permit.

D.4.6 Parametric Monitoring

The Permittee shall record the total static pressure drop across the baghouse used in conjunction with the Pressing Department operations (Emission Unit PD-12A) at least once per shift when the Pressing Department equipment is in operation. Unless operated under conditions for which the Compliance Response Plan specifies otherwise, the pressure drop across the baghouse shall be maintained within the range of 2.0 and 8.0 inches of water or a range established during the latest stack test. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when the pressure reading is outside of the above-mentioned range for any one reading. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan – Failure to Take Response Steps, shall be considered a violation of this permit.

The instrument used for determining the pressure shall comply with Section C - Pressure Gauge and Other Instrument Specifications, of this permit, shall be subject to approval by IDEM-OAQ and HDEM, and shall be calibrated at least once every six (6) months.

D.4.7 Baghouse Inspections

An inspection shall be performed each calendar quarter of all bags controlling the operations when venting to the atmosphere. A baghouse inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting to the indoors. All defective bags shall be replaced.

D.4.8 Broken or Failed Bag Detection

In the event that bag failure has been observed:

(a) For multi-compartment units, the affected compartments shall be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if there are no visible emissions or if the event qualifies as an emergency and the Permittee satisfies the emergency provisions of this permit (Section B – Emergency Provisions). Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan – Failure to Take Response Steps, shall be considered a violation of this permit.

(b) For single compartment baghouses, failed units and the associated process shall be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

Record Keeping and Reporting Requirement [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.4.9 Record Keeping Requirements

(a) To document compliance with Condition D.4.5, the Permittee shall maintain records of daily visible emission notations of the Pressing Department equipment (Emission Unit PD-12A) stack exhaust.

(b) To document compliance with Condition D.4.6, the Permittee shall maintain the following:

(1) Once per shift records of the following operational parameters during normal operation when venting to the atmosphere:

(A) Inlet and outlet differential static pressure; and

(B) Cleaning cycle operation.

(c) To document compliance with Condition D.4.7, the Permittee shall maintain records of the results of the inspections required under Condition D.4.7.

(d) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

SECTION D.5 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]:

Drying Department, consisting of the following emission units:

A) Lanly Bake Oven, using only natural gas, identified as PS-7, constructed in 1957, with a maximum capacity of 7.0 million British thermal units per hour (MMBtu/hr), and maximum drying capacity of 4.0 tons per hour and exhausting to stack S-7.

B) Basic Dryer, using only natural gas, identified as PS-8, constructed in 1957, with a maximum capacity of 13.5 million British thermal units per hour (MMBtu/hr), and maximum drying capacity of 7.6 tons per hour and exhausting to stack S-8.

C) Rotary Dryer, using only natural gas, identified as PD-10, constructed in 1957, with a maximum capacity of 3.5 million British thermal units per hour (MMBtu/hr), and maximum drying capacity of 20.0 tons per hour, using a cyclone in series with a baghouse as control and exhausting to stack D-10.

D) Tunnel Kiln #1, using natural gas as primary fuel and distillate oil as standby fuel, identified as PS-6, constructed in 1956, with a maximum capacity of 40.0 million British thermal units per hour (MMBtu/hr) maximum drying capacity of 4.2 tons per hour, and exhausting to stack S-6.

E) Tunnel Kiln #2, using natural gas as primary fuel and distillate oil as standby fuel, identified as PS-3, constructed in 1970, with a maximum capacity of 40.0 million British thermal units per hour (MMBtu/hr) maximum drying capacity of 4.2 tons per hour, and exhausting to stack S-3.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.5.1 Lake County PM_{10} emission requirements [326 IAC 6-1-10.1(d)]

Pursuant to 326 IAC 6-1-10.1(d), the PM10 from the Drying Department emission units shall not exceed the pounds per hour emission rate shown as follows:

Emission Unit Description	Emission Unit ID #	PM_{10} Emission Limit (lbs/Ton)	PM_{10} Emission Limit (lbs/hr)
Lanly Bake Oven	PS-7	0.210	0.84
Basic Dryer	PS-8	0.916	3.02
Rotary Dryer	PD-10	0.032	0.64
Tunnel Kiln #1, using natural gas as primary fuel and distillate oil as standby fuel.	PS-6	1.36	4.5 each (two tunnel kilns operating), 8.4 (one tunnel kiln operating)
Tunnel Kiln #2, using natural gas as primary fuel and distillate oil as standby fuel.	PS-3	1.36	4.5 each (two tunnel kilns operating), 8.4 (one tunnel kiln operating)

D.5.2 Sulfur Dioxide (SO_2) [326 IAC 7-4-1.1(c)(8)] [326 IAC 7-2-1]

Pursuant to 326 IAC 7-4-1.1(c)(8) (SO_2 Emissions Limitations), the SO_2 emissions from the Tunnel Kilns #1 and #2, shall not exceed three-hundredths (0.03) pound per million Btu (lb/MMBtu) heat input while combusting fuel oil. Pursuant to 326 IAC 7-2-1, compliance shall be demonstrated on a thirty (30) day rolling weighted average. 326 IAC 7-4-1.1 and 326 IAC 7-2-1 are not federally enforceable.

D.5.3 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for these facilities and any control devices.

Compliance Determination Requirements

D.5.4 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

The commissioner may require stack testing, monitoring, or reporting at any time to assure compliance with all applicable requirements. Any monitoring or testing shall be performed in accordance with 326 IAC 3 or other methods approved by the commissioner or the U. S. EPA.

D.5.5 Sulfur Dioxide Emissions and Sulfur Content

Compliance with Condition D.5.2 shall be determined utilizing one of the following options:

(a) Pursuant to 326 IAC 3-7-4, the Permittee shall demonstrate that the sulfur dioxide emissions do not exceed three-hundredths (0.03) pound per million Btu heat input by:

(1) Providing vendor analysis of fuel delivered, if accompanied by a vendor certification; or

(2) Analyzing the oil sample to determine the sulfur content of the oil via the procedures in 40 CFR 60, Appendix A, Method 19.

(A) Oil samples may be collected from the fuel tank immediately after the fuel tank is filled and before any oil is combusted; and

(B) If a partially empty fuel tank is refilled, a new sample and analysis would be required upon filling.

(b) Compliance may also be determined by conducting a stack test for sulfur dioxide emissions from the boiler using 40 CFR 60, Appendix A, Method 6 in accordance with the procedures in 326 IAC 3-6.

A determination of noncompliance pursuant to any of the methods specified in (a) or (b) above shall not be refuted by evidence of compliance pursuant to the other method.

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

D.5.6 Visible Emissions Notations

(a) Visible emission notations of the Drying Department equipment (Emission Unit PS-7, PS-8, PD-10, PS-6, and PS-3) stacks exhaust shall be performed once per shift during normal daylight operations when these units are in operation. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) The Compliance Response Plan for these units shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C – Compliance Monitoring Plan – Failure to Take Response Steps, shall be considered a violation of this permit.

D.5.7 Parametric Monitoring

The Permittee shall record the total static pressure drop across the baghouse used in conjunction with the Rotary Dryer (Emission Unit PD-10) at least once per shift when the Rotary Dryer is in operation. Unless operated under conditions for which the Compliance Response Plan specifies otherwise, the pressure drop across the baghouse shall be maintained within the range of 2.0 and 8.0 inches of water or a range established during the latest stack test. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when the pressure reading is outside of the above-mentioned range for any one reading. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan – Failure to Take Response Steps, shall be considered a violation of this permit.

The instrument used for determining the pressure shall comply with Section C - Pressure Gauge and Other Instrument Specifications, of this permit, shall be subject to approval by IDEM-OAQ and HDEM, and shall be calibrated at least once every six (6) months.

D.5.8 Baghouse Inspections

An inspection shall be performed each calendar quarter of all bags controlling the operations when venting to the atmosphere. A baghouse inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting to the indoors. All defective bags shall be replaced.

D.5.9 Broken or Failed Bag Detection

In the event that bag failure has been observed:

(a) For multi-compartment units, the affected compartments shall be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if there are no visible emissions or if the event qualifies as an emergency and the Permittee satisfies the emergency provisions of this permit (Section B – Emergency Provisions). Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan – Failure to Take Response Steps, shall be considered a violation of this permit.

(b) For single compartment baghouses, failed units and the associated process shall be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

Record Keeping and Reporting Requirement [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.5.10 Record Keeping Requirements

(a) To document compliance with Condition D.5.2, the Permittee shall maintain records in accordance with (1) through (6) below. Records maintained for (1) through (6) shall be taken monthly and shall be complete and sufficient to establish compliance with the SO_2 emission limit established in Condition D.5.2.

(1) Calendar dates covered in the compliance determination period;

(2) Actual fuel oil usage since last compliance determination period and equivalent sulfur dioxide emissions;

(3) A certification, signed by the owner or operator, that the records of the fuel supplier certifications represent all of the fuel combusted during the period, the natural gas fired boiler certification does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34); and

If the fuel supplier certification is used to demonstrate compliance, the following, as a minimum, shall be maintained:

(4) Fuel supplier certifications;

(5) The name of the fuel supplier; and

(6) A statement from the fuel supplier that certifies the sulfur content of the fuel oil.

(b) To document compliance with Condition D.5.6, the Permittee shall maintain records of daily visible emission notations of the Drying Department equipment (PS-7, PS-8, PS-6, and PS-3) stacks exhaust.

(c) To document compliance with Condition D.5.7, the Permittee shall maintain the following:

(1) Once per shift records of the following operational parameters during normal operation when venting to the atmosphere:

(A) Inlet and outlet differential static pressure; and

(B) Cleaning cycle operation.

(d) To document compliance with Condition D.5.8, the Permittee shall maintain records of the results of the inspections required under Condition D.5.8.

(e) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

SECTION D.6 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]:

Montco Line: Dry batching, mixing, and packing of castable refractory consisting of:

a. One (1) Pre-Batching Area with a bulk bag feed station and a manual bag break station,
b. One (1) Montco Mixer, with elevated tote station, and
c. One (1) Sacking Station.

The Montco Line, identified as PS-30, constructed in 2001, has a maximum capacity of 10 tons per hour, uses a jet pulse cartridge dust collector (D-30) for particulate control, and exhausts to stack S-30.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.6.1 Non-Attainment Area Particulate Limitations [326 IAC 6-1-2(a)] [326 IAC 6-1-2(h)] [326 IAC 2-2]

Pursuant to 326 IAC 6-1-2(a) and (h), the PM and PM10 emissions from the Montco Line exhaust stack S-30 shall not exceed the pounds per hour emission rates shown as follows:

Emission Unit ID and Description	PM Emission Limit 326 IAC 6-1-2(a)	PM10 Emission Limit 326 IAC 6-1-2(h)
Montco Line – Dry batching, mixing, and packing line Jet Pulse Cartridge Dust Collector (D-30) Stack (S-30)	0.03 gr/dscf equivalent to 1.8 lbs/hr	0.022 gr/dscf equivalent to 1.32 lbs/hr

Lake County is classified as moderate non-attainment for PM10, therefore 326 IAC 2-2, Prevention of Significant Deterioration (PSD) requirements do not apply to this modification.

D.6.2 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for these facilities and any control devices.

Compliance Determination Requirements

D.6.3 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

The commissioner may require stack testing, monitoring, or reporting at any time to assure compliance with all applicable requirements. Any monitoring or testing shall be performed in accordance with 326 IAC 3 or other methods approved by the commissioner or the U. S. EPA.

D.6.4 Particulate Matter (PM) and Particulate Matter less than 10 microns (PM10)

In order to comply with Condition D.6.1, the particulate control device (D-30) shall be in operation and control emissions from the Montco Line at all times when the emission units are in operation.

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

D.6.5 Visible Emissions Notations

(a) Visible emission notations of the Montco Line stack exhaust (S-30) shall be performed once per shift during normal daylight operations when the line is in operation. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) The Compliance Response Plan for these units shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C – Compliance Monitoring Plan – Failure to Take Response Steps, shall be considered a violation of this permit.

D.6.6 Parametric Monitoring

The Permittee shall record the total static pressure drop across the dust collector (D-30) used in conjunction with the Montco Line at least once per shift when the Montco Line is in operation. Unless operated under conditions for which the Compliance Response Plan specifies otherwise, the pressure drop across the dust collector shall be maintained within the range of 2.0 and 8.0 inches of water or a range established during the latest stack test. The Compliance Response Plan for these units shall contain troubleshooting contingency and response steps for when the pressure reading is outside of the above-mentioned range for any one reading. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan – Failure to Take Response Steps, shall be considered a violation of this permit.

The instrument used for determining the pressure shall comply with Section C - Pressure Gauge and Other Instrument Specifications, of this permit, shall be subject to approval by IDEM-OAQ and HDEM, and shall be calibrated at least once every six (6) months.

D.6.7 Baghouse / Dust Collector Inspections

An inspection shall be performed each calendar quarter of all bags or cartridges controlling the operations that vent to the atmosphere. A baghouse / dust collector inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting indoors. All defective bags or cartridges shall be replaced.

D.6.8 Broken or Failed Bag / Cartridge Detection

In the event that bag or cartridge failure has been observed:

(a) For multi-compartment units, the affected compartments shall be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if there are no visible emissions or if the event qualifies as an emergency and the Permittee satisfies the emergency provisions of this permit (Section B – Emergency Provisions). Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of

discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan – Failure to Take Response Steps, shall be considered a violation of this permit.

(b) For single compartment baghouses or dust collectors, failed units and the associated process shall be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

Record Keeping and Reporting Requirement [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.6.9 Record Keeping Requirements

(a) To document compliance with Condition D.6.5, the Permittee shall maintain records of daily visible emission notations for the Montco Line stack S-30.

(b) To document compliance with Condition D.6.6, the Permittee shall maintain the following:

Once per shift records of the following operational parameters during normal operation when venting to the atmosphere:

(B) Inlet and outlet differential static pressure; and

(B) Cleaning cycle operation.

(c) To document compliance with Condition D.6.7, the Permittee shall maintain records of the results of the inspections required under Condition D.6.7.

(d) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION
and
HAMMOND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

PART 70 OPERATING PERMIT CERTIFICATION

Source Name: Resco Products, Inc.
Source Address: 5501 Kennedy Avenue, Hammond, Indiana 46323
Mailing Address: P. O. Box 2128, Hammond, Indiana 46323
Part 70 Permit No.: T089-7791-00222

This certification shall be included when submitting monitoring, testing reports/results or other documents as required by this permit.

Please check what document is being certified:

☐ Annual Compliance Certification Letter

☐ Test Result (specify) _____

☐ Report (specify) _____

☐ Notification (specify) _____

☐ Affidavit (specify) _____

☐ Other (specify) _____

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

Signature: _____

Printed Name: _____

Title/Position: _____

Date: _____

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY

COMPLIANCE BRANCH
P.O. Box 6015
100 North Senate Avenue
Indianapolis, Indiana 46206-6015
Phone: 317-233-5674
Fax: 317-233-5967
and

HAMMOND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

5925 Calumet Avenue
Hammond, Indiana 46320
Phone: 219-853-6306
Fax: 219-853-6343

PART 70 OPERATING PERMIT
EMERGENCY OCCURRENCE REPORT

Source Name: Resco Products, Inc.
Source Address: 5501 Kennedy Avenue, Hammond, Indiana 46323
Mailing Address: P. O. Box 2128, Hammond, Indiana 46323
Part 70 Permit No.: T089-7791-00222

This form consists of 2 pages **Page 1 of 2**

☐ This is an emergency as defined in 326 IAC 2-7-1(12)
- The Permittee must notify the Office of Air Quality (OAQ), within four (4) business hours (1-800-451-6027 or 317-233-5674, ask for Compliance Section); and
- The Permittee must submit notice by mail or facsimile within two (2) days (Facsimile Number: 317-233-5967), and follow the other requirements of 326 IAC 2- 7-16

If any of the following are not applicable, mark N/A

Facility/Equipment/Operation:
Control Equipment:
Permit Condition or Operation Limitation in Permit:
Description of the Emergency:
Describe the cause of the Emergency:

If any of the following are not applicable, mark N/A **Page 2 of 2**

Date/Time Emergency started:
Date/Time Emergency was corrected:
Was the facility being properly operated at the time of the emergency? Y N Describe:
Type of Pollutants Emitted: TSP, PM-10, SO_2, VOC, NO_X, CO, Pb, other:
Estimated amount of pollutant(s) emitted during emergency:
Describe the steps taken to mitigate the problem:
Describe the corrective actions/response steps taken:
Describe the measures taken to minimize emissions:
If applicable, describe the reasons why continued operation of the facilities are necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw materials of substantial economic value:

Form Completed by: _____

Title / Position: _____

Date: _____

Phone: _____

A certification is not required for this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION

and

HAMMOND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

PART 70 OPERATING PERMIT
QUARTERLY DEVIATION and COMPLIANCE MONITORING REPORT

Source Name:	Resco Products, Inc.
Source Address:	5501 Kennedy Avenue, Hammond, Indiana 46323
Mailing Address:	P. O. Box 2128, Hammond, Indiana 46323
Part 70 Permit No.:	T089-7791-00222

Months: _____ **to** _____ **Year:** _____

This report is an affirmation that the source has met all the requirements stated in this permit. This report shall be submitted quarterly based on a calendar year. Any deviation from the requirements, the date(s) of each deviation, the probable cause of the deviation, and the response steps taken must be reported. Deviations that are required to be reported by an applicable requirements shall be reported according to the schedule stated in the applicable requirement and do not need to be included in this report. Additional pages may be attached if necessary. If no deviations occurred, please specify in the box marked "No deviations occurred this reporting period".

☐ NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.

☐ THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD.

Permit Requirement (Specify permit condition #)	
Date of Deviation:	**Duration of Deviation:**
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	
Permit Requirement (Specify permit condition #)	
Date of Deviation:	**Duration of Deviation:**
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	
Permit Requirement (Specify permit condition #)	
Date of Deviation:	**Duration of Deviation:**
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	

Page 2 of 2

Permit Requirement (Specify permit condition #)	
Date of Deviation:	**Duration of Deviation:**
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	
Permit Requirement (Specify permit condition #)	
Date of Deviation:	**Duration of Deviation:**
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	

Form Completed By: _____

Title/Position: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

Indiana Department of Environmental Management
Office of Air Quality

and

Hammond Department of Environmental Management

Addendum to the
Technical Support Document for a Part 70 Operating Permit

Source Name:	**Resco Products, Inc.**
Source Location:	5501 Kennedy Avenue, Hammond, Indiana 46323
County:	Lake County
SIC Code:	3297 – Nonclay Refractories
Operation Permit No.:	T089-7791-00222
Permit Reviewer:	Debra Malone, HDEM

On January 3, 2001, the Hammond Department of Environmental Management (HDEM) had a notice published in the Times, Hammond, Indiana, stating that Resco Products, Inc. had applied for a Part 70 Operating Permit to manufacture Magnesite-Carbon and Alumina-Carbon resin-bonded refractory shapes. The notice also stated that HDEM proposed to issue a permit for this operation and provided information on how the public could review the proposed permit and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this permit should be issued as proposed. Comments were received during this period and are addressed below.

All references to the Office of Air Management have been changed to the Office of Air Quality and OAM to OAQ.

Upon further review, the HDEM has decided to make the following revisions to the permit (bolded language has been added, the language with a line through it has been deleted). The Table Of Contents has been modified to reflect these changes.

1. Condition A.1 (General Information), Source Status has been revised as follows:

   Source Status: Part 70 Permit Program
   ~~Major~~ **Minor** Source, under Emission Offset Rules;
   Major Source, Section 112 of the Clean Air Act

2. Condition A.2, 1., A), a., i., (Emission Units and Pollution Control Equipment Summary) has been revised as follows:

   A) Magnesite processing, consisting of the following emission units:

      a. Magnesite Handling & Storage – East Silos

         i. Equipment for unloading and initial screening of magnesite. Also includes equipment for conveying fine magnesite fractions to the east storage silos~~,~~ ~~I~~ **i**dentified as PD-2, constructed in 1993, with a maximum process rate of 35.0 tons per hour, using a baghouse as control, and exhausting to stack D-2.

3. Condition A.2, 1., B), a., (Emission Units and Pollution Control Equipment Summary) has been revised as follows:

B) Brick (Bats) crushing, consisting of the following emission units:

a. Recycle**d** refractory material and magnesite crushing and screening operations, identified as PD-9, constructed in 1956, at a maximum rate of 20.0 tons per hour, using a baghouse as control, and exhausting to stack D-9.

4. Condition B.7, (c), (Duty to Supplement and Provide Information) has been revised as follows:

(c) The Permittee may include a claim of confidentiality in accordance with 326 IAC 17. When furnishing copies of requested records directly to U. S. EPA**,** ~~. T~~**t**he Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

5. Condition B.8 (Compliance with Permit Conditions) has been revised to clarify that noncompliance with any requirement of this permit may result in an enforcement action against the permittee, an action to modify, revoke, reissue or terminate the source's permit, and/or a denial of the permittee's application to renew the permit. In addition, except for those permit conditions that are not federally enforceable, noncompliance is also a violation of the federal Clean Air Act.

B.8 Compliance with Permit Conditions [326 IAC 2-7-5(6)(A)] [326 IAC 2-7-5(6)(B)]

(a) The Permittee must comply with all conditions of this permit. Noncompliance with any provision~~s~~ of this permit~~, except those specifically designated as not federally enforceable, constitutes a violation of the Clean Air Act and~~ is grounds for:

(1) Enforcement action;

(2) Permit termination, revocation and reissuance, or modification; or

(3) Denial of a permit renewal application.

(b) Noncompliance with any provisions of this permit, except any provision specifically designated as not federally enforceable, constitutes a violation of the Clean Air Act.

(~~b~~**c**) It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

(~~c~~**d**) An emergency does constitute an affirmative defense in an enforcement action provided the Permittee complies with the applicable requirements set forth in Section B, Emergency Provisions.

6. Condition B.15 (Deviations from Permit Requirements and Conditions), under paragraph (b), (3) was changed to (c).

B.15 Deviations from Permit Requirements and Conditions [326 IAC 2-7-5(3)(C)(ii)]

(a) Deviations from any permit requirements (for emergencies see Section B - Emergency Provisions), the probable cause of such deviations, and any response steps or preventive measures taken shall be reported to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

and

Hammond Department of Environmental Management
5925 Calumet Avenue, Room 304
Hammond, Indiana 46320

using the attached Quarterly Deviation and Compliance Monitoring Report, or its equivalent. Deviations that are required to be reported by an applicable requirement shall be reported according to the schedule stated in the applicable requirement and do not need to be included in this report.

The notification by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(b) A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit or a rule. It does not include:

(1) An excursion from compliance monitoring parameters as identified in Section D of this permit unless tied to an applicable rule or limit; or

(2) Failure to implement elements of the Preventive Maintenance Plan unless such failure has caused or contributed to a deviation.

A Permittee's failure to take the appropriate response step when an excursion of a compliance monitoring parameter has occurred is a deviation.

(c) ~~(3)~~ Emergencies shall be included in the Quarterly Deviation and Compliance Monitoring Report.

7. Condition B.20 (Operational Flexibility) language has been added to the last sentence in paragraph (b).

B.20 Operational Flexibility [326 IAC 2-7-20] [326 IAC 2-7-10.5]

(a) The Permittee may make any change or changes at the source that are described in 326 IAC 2-7-20(b), (c), or (e), without a prior permit revision, if each of the following conditions is met:

(1) The changes are not modifications under any provision of Title I of the Clean Air Act;

(2) Any preconstruction approval required by 326 IAC 2-7-10.5 has been obtained;

(3) The changes do not result in emissions which exceed the emissions allowable under this permit (whether expressed herein as a rate of emissions or in terms of total emissions);

(4) The Permittee notifies the:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

and

Hammond Department of Environmental Management
5925 Calumet Avenue, Room 304
Hammond, Indiana 46320

and

United States Environmental Protection Agency, Region V
Air and Radiation Division, Regulation Development Branch - Indiana (AR-18J)
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

in advance of the change by written notification at least ten (10) days in advance of the proposed change. The Permittee shall attach every such notice to the Permittee's copy of this permit; and

(5) The Permittee maintains records on site which document, on a rolling five (5) year basis, all such changes and emissions trading that are subject to 326 IAC 2-7-20(b), (c), or (e) and makes such records available, upon reasonable request, for public review.

Such records shall consist of all information required to be submitted to IDEM-OAQ and HDEM in the notices specified in 326 IAC 2-7-20(b), (c)(1), and (e)(2).

(b) The Permittee may make Section 502(b)(10) of the Clean Air Act changes (this term is defined at 326 IAC 2-7-1(36)) without a permit revision, subject to the constraint of 326 IAC 2-7-20(a).

For each such Section 502(b)(10) of the Clean Air Act change, the required written notification shall include the following:

(1) A brief description of the change within the source;

(2) The date on which the change will occur;

(3) Any change in emissions; and

(4) Any permit term or condition that is no longer applicable as a result of the change.

The notification which shall be submitted **is not considered an application form, report or compliance certification. Therefore, the notification** by the Permittee does not require the certification by the “responsible official” as defined by 326 IAC 2-7-1(34).

8. Condition C.8 (Asbestos Abatement Projects), language has been changed at the end of the sentence in paragraph (f).

C.8 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

(f) Indiana Accredited Asbestos Inspector
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Accredited Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement that the inspector be accredited, **pursuant to the provisions of 40 CFR 61, Subpart M,** is federally enforceable.

9. Condition C.12 (Continuous Compliance Plan), language has been changed to include subsections (m) through (o) and (s) through (v).

C.12 Continuous Compliance Plan [326 IAC 6-1-10.1(l))]
Pursuant to 326 IAC 6-1-10.1(l) (Lake County PM10 Emission Requirements), the Permittee shall submit to IDEM-OAQ and HDEM, and maintain at the source a copy of the Continuous Compliance Plan (CCP) **as specified in 326 IAC 6-1-10.1(m) through (o)**. The Permittee shall perform the inspections, monitoring, and record keeping requirements as specified in 326 IAC 6-1-10.1(p) through (r) or according to the Permittee's CCP. **The Permittee shall also revise and update the CCP as specified in 326 IAC 6-1-10.1(s) through (v).**

10. Condition C.22 (General Reporting Requirements), paragraph (d), at the beginning of the last sentence, "The" has been replaced with "All".

(d) Unless otherwise specified in this permit, any quarterly report required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. ~~The~~**All** reports do require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

11. Section D.1 (Facility Description) has been revised as follows:

A) Magnesite processing, consisting of the following emission units:

a. Magnesite Handling & Storage – East Silos

i. Equipment for unloading and initial screening of magnesite. Also includes equipment for conveying fine magnesite fractions to the east storage silos**,**~~.~~ ~~I~~ **i**dentified as PD-2, constructed in 1993, with a maximum process rate of 35.0 tons per hour, using a baghouse as control, and exhausting to stack D-2.

and

B) Brick (Bats) crushing, consisting of the following emission units:

a. Recycle**d** refractory material and magnesite crushing and screening operations, identified as PD-9, constructed in 1956, at a maximum rate of 20.0 tons per hour, using a baghouse as control, and exhausting to stack D-9.

12. In all (Parametric Monitoring) conditions, Conditions D.1.6, D.2.6, D.3.7, and D.4.6, the total static pressure drop across each baghouse shall now be recorded at least once per shift instead of at least once daily as stated in the CCP in order to ensure continuous compliance. This change will fill the monitoring gap in the SIP since EPA declined to approve the CCP provisions. The changes are as follows:

D.1.6 Parametric Monitoring

The Permittee shall record the total static pressure drop across the baghouse used in conjunction with the Raw Material Processing Department operations (Emission Units PD-2, PD-11, PD-18, PD-8, PD-13, and PD-9) at least once ~~daily~~ **per shift** when the Raw Material Processing Department equipment is in operation. Unless operated under conditions for which the Compliance Response Plan specifies otherwise, the pressure drop across the baghouse shall be maintained within the range of 2.0 and 8.0 inches of water or a range established during the latest stack test. The Compliance Response Plan for these units shall contain troubleshooting contingency and response steps for when the pressure reading is outside of the above-mentioned range for any one reading. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan – Failure to Take Response Steps, shall be considered a violation of this permit.

The instrument used for determining the pressure shall comply with Section C - Pressure Gauge and Other Instrument Specifications, of this permit, shall be subject to approval by IDEM-OAQ and HDEM, and shall be calibrated at least once every six (6) months.

D.2.6 Parametric Monitoring

The Permittee shall record the total static pressure drop across the baghouse used in conjunction with the Mixing Department operations (Emission Units PD-12B, PD-12C, PD-12D, PD-14, PD-4, PD-5, and PD-6) at least once ~~daily~~ **per shift** when the Mixing Department equipment is in operation. Unless operated under conditions for which the Compliance Response Plan specifies otherwise, the pressure drop across the baghouse shall be maintained within the range of 2.0 and 8.0 inches of water or a range established during the latest stack test. The Compliance Response Plan for these units shall contain troubleshooting contingency and response steps for when the pressure reading is outside of the above-mentioned range for any one reading. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan – Failure to Take Response Steps, shall be considered a violation of this permit.

The instrument used for determining the pressure shall comply with Section C - Pressure Gauge and Other Instrument Specifications, of this permit, shall be subject to approval by IDEM-OAQ and HDEM, and shall be calibrated at least once every six (6) months.

D.3.7 Parametric Monitoring

The Permittee shall record the total static pressure drop across the baghouse used in conjunction with the Batching Department operations (Emission Units PD-12E, PD-20, PD-19, and PD-22) at least once ~~daily~~ **per shift** when the Batching Department equipment is in operation. Unless operated under conditions for which the Compliance Response Plan specifies otherwise, the pressure drop across the baghouse shall be maintained within the range of 2.0 and 8.0 inches of water or a range established during the latest stack test. The Compliance Response Plan for these units shall contain troubleshooting contingency and response steps for when the pressure reading is outside of the above-mentioned range for any one reading. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan – Failure to Take Response Steps, shall be considered a violation of this permit.

The instrument used for determining the pressure shall comply with Section C - Pressure Gauge and Other Instrument Specifications, of this permit, shall be subject to approval by IDEM-OAQ and HDEM, and shall be calibrated at least once every six (6) months.

D.4.6 Parametric Monitoring

The Permittee shall record the total static pressure drop across the baghouse used in conjunction with the Pressing Department operations (Emission Unit PD-12A) at least once ~~daily~~ **per shift** when the Pressing Department equipment is in operation. Unless operated under conditions for which the Compliance Response Plan specifies otherwise, the pressure drop across the baghouse shall be maintained within the range of 2.0 and 8.0 inches of water or a range established during the latest stack test. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when the pressure reading is outside of the above-mentioned range for any one reading. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan – Failure to Take Response Steps, shall be considered a violation of this permit.

The instrument used for determining the pressure shall comply with Section C - Pressure Gauge and Other Instrument Specifications, of this permit, shall be subject to approval by IDEM-OAQ and HDEM, and shall be calibrated at least once every six (6) months.

13. In order to be consistent with each Parametric Monitoring condition, the operational parameters in all (Record Keeping Requirements) conditions, Conditions D.1.9, D.2.9, D.3.10, and D.4.9, used to document compliance with the above-mentioned parametric monitoring requirements shall be recorded once per shift instead of daily. The changes are as follows:

D.1.9 Record Keeping Requirements

(a) To document compliance with Condition D.1.5, the Permittee shall maintain records of daily visible emission notations of the Raw Material Processing Department equipment (Emission Units PD-2, PD-11, PD-18, PD-8, PD-13, and PD-9) stack exhaust.

(b) To document compliance with Condition D.1.6, the Permittee shall maintain the following:

(1) ~~Daily~~ **Once per shift** records of the following operational parameters during normal operation when venting to the atmosphere:

(A) Inlet and outlet differential static pressure; and

(B) Cleaning cycle operation.

D.2.9 Record Keeping Requirements

(a) To document compliance with Condition D.2.5, the Permittee shall maintain records of daily visible emission notations of the Mixing Department equipment (Emission Units PD-12B and PD-12C (common stack D-21), PD-12D, PD-14, PD-4, PD-5, and PD-6) stack exhaust.

(b) To document compliance with Condition D.2.6, the Permittee shall maintain the following:

(1) ~~Daily~~ **Once per shift** records of the following operational parameters during normal operation when venting to the atmosphere:

(A) Inlet and outlet differential static pressure; and

(B) Cleaning cycle operation.

D.3.10 Record Keeping Requirements

(a) To document compliance with Condition D.3.6, the Permittee shall maintain records of daily visible emission notations of the Batching Department equipment (Emission Units PD-12E, PD-20, PD-19, and PD-22) stack exhaust.

(b) To document compliance with Condition D.3.7, the Permittee shall maintain the following:

(1) ~~Daily~~ **Once per shift** records of the following operational parameters during normal operation when venting to the atmosphere:

(A) Inlet and outlet differential static pressure; and

(B) Cleaning cycle operation.

D.4.9 Record Keeping Requirements

(a) To document compliance with Condition D.4.5, the Permittee shall maintain records of daily visible emission notations of the Pressing Department equipment (Emission Unit PD-12A) stack exhaust.

(b) To document compliance with Condition D.4.6, the Permittee shall maintain the following:

(1) ~~Daily~~ **Once per shift** records of the following operational parameters during normal operation when venting to the atmosphere:

(A) Inlet and outlet differential static pressure; and

(B) Cleaning cycle operation.

14. Condition D.5.4 (Testing Requirements) has been added to Section D.5 under Compliance Determination Requirements. Condition 5.4 reads as follows:

Compliance Determination Requirements

D.5.4 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

The commissioner may require stack testing, monitoring, or reporting at any time to assure compliance with all applicable requirements. Any monitoring or testing shall be performed in accordance with 326 IAC 3 or other methods approved by the commissioner or the U. S. EPA.

15. Condition D.5.6 (Parametric Monitoring) and Condition D.5.7 (Baghouse Inspections), now Conditions D.5.7 and D.5.8 has been added to Section D.5 under Compliance Monitoring Requirements. Conditions 5.7 and 5.8 read as follows:

D.5.7 Parametric Monitoring

The Permittee shall record the total static pressure drop across the baghouse used in conjunction with the Rotary Dryer (Emission Unit PD-10) at least once per shift when the Rotary Dryer is in operation. Unless operated under conditions for which the Compliance Response Plan specifies otherwise, the pressure drop across the baghouse shall be maintained within the range of 2.0 and 8.0 inches of water or a range established during the latest stack test. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when the pressure reading is outside of the above-mentioned range for any one reading. Failure

to take response steps in accordance with Section C - Compliance Monitoring Plan – Failure to Take Response Steps, shall be considered a violation of this permit.

The instrument used for determining the pressure shall comply with Section C - Pressure Gauge and Other Instrument Specifications, of this permit, shall be subject to approval by IDEM-OAQ and HDEM, and shall be calibrated at least once every six (6) months.

D.5.8 Baghouse Inspections

An inspection shall be performed each calendar quarter of all bags controlling the operations when venting to the atmosphere. A baghouse inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting to the indoors. All defective bags shall be replaced.

16. Condition D.5.9 (Record Keeping Requirements) has been revised as follows:

D.5.~~9~~**10** Record Keeping Requirements

(a) To document compliance with Condition D.5.2, the Permittee shall maintain records in accordance with (1) through (6) below. Records maintained for (1) through (6) shall be taken monthly and shall be complete and sufficient to establish compliance with the SO_2 emission limit established in Condition D.5.2.

(1) Calendar dates covered in the compliance determination period;

(2) Actual fuel oil usage since last compliance determination period and equivalent sulfur dioxide emissions;

(3) A certification, signed by the owner or operator, that the records of the fuel supplier certifications represent all of the fuel combusted during the period, the natural gas fired boiler certification does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34); and

If the fuel supplier certification is used to demonstrate compliance, the following, as a minimum, shall be maintained:

(4) Fuel supplier certifications;

(5) The name of the fuel supplier; and

(6) A statement from the fuel supplier that certifies the sulfur content of the fuel oil.

(b) To document compliance with Condition D.5.~~5~~**6**, the Permittee shall maintain records of daily visible emission notations of the Drying Department equipment (PS-7, PS-8, PS-6, and PS-3) stacks exhaust.

(c) To document compliance with Condition D.5.7, the Permittee shall maintain the following:

(1) Once per shift records of the following operational parameters during normal operation when venting to the atmosphere:

(A) Inlet and outlet differential static pressure; and

(B) Cleaning cycle operation.

(d) To document compliance with Condition D.5.8, the Permittee shall maintain records of the results of the inspections required under Condition D.5.8.

(~~c~~**e**) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

On June 27, 2001, Resco Products, Inc. submitted an application to the HDEM requesting to add a dry product mixing and packing operation to their existing plant. This operation is referred to as the Montco Line:

Montco Line: Dry batching, mixing, and packing of castable refractory consisting of:
(a) One (1) Pre-Batching Area with a bulk bag feed station and a manual bag break station,
(b) One (1) Montco Mixer, with elevated tote station, and
(c) One (1) Sacking Station.
The Montco Line has a maximum capacity of 10 tons per hour, uses a jet pulse cartridge dust collector (D-30) for particulate control, and exhausts to stack S-30.

This operation qualified as a Part 70 Minor Source Modification (089-14801-00222) pursuant to 326 IAC 2-7-10.5(d)(4)(A) – Less than twenty-five (25) tons per year and equal to or greater than five (5) tons per year of either particulate matter (PM) or particulate matter less than ten (10) microns (PM10). The Minor Source Modification was issued on September 26, 2001. The Part 70 Operating permit is being modified to include this Minor Source Modification prior to the EPA 15-day additional review.

Upon further review, the HDEM has decided to make the following revisions to the permit (bolded language has been added, the language with a line through it has been deleted). The Table Of Contents has been modified to reflect these changes.

Technical Support Document (TSD)

1. Under Permitted Emission Units and Pollution Control Equipment, 6. Montco Line has been added as follows:

6. Montco Line: Dry batching, mixing, and packing of castable refractory consisting of:
a. One (1) Pre-Batching Area with a bulk bag feed station and a manual bag break station,
b. One (1) Montco Mixer, with elevated tote station, and
c. One (1) Sacking Station.
The Montco Line, identified as PS-30, constructed in 2001, has a maximum capacity of 10 tons per hour, uses a jet pulse cartridge dust collector (D-30) for particulate control, and exhausts to stack S-30.

2. Under Existing Approvals, the Minor Source Modification (089-14801-00222) issued September 26, 2001 has been included as follows:

(z) MSM 089-14801-00222, issued on September 26, 2001.

3. In the Potential to Emit After Issuance table, the Montco Line has been added as follows:

Potential to Emit After Issuance

The table below summarizes the potential to emit, reflecting all limits, of the significant emission units after controls. The control equipment is considered federally enforceable only after issuance of this Part 70 operating permit.

Potential to Emit (tons/year)								
Process/facility	**Stack ID #**	**PM (lbs/hr)**	**PM-10 (lbs/hr)**	**SO_2 (lbs/MMBtu)**	**VOC**	**CO**	**NO_X**	**HAPs**
Magnesite Handling & Storage – East Silos	D-2	-	0.41	-	-	-	-	-
Magnesite Handling & Storage – West Silos	D-11	-	0.41	-	-	-	-	-
Oversize Magnesite Crushing	D-18	-	0.58	-	-	-	-	-
Magnesite Classifying & Conveying to Storage Bins	D-8	-	1.28	-	-	-	-	-
Magnesite Classifying & Conveying to Storage Bins	D-13	-	0.70	-	-	-	-	-
Brick (Bats) crushing, Recycle refractory material and magnesite screening and crushing operations	D-9	-	0.49	-	-	-	-	-
RV-15 Mixers #1 and #2	D-21	-	0.15 per dust collector, 0.30 at stack	-	-	-	-	-
RV-15 Mixer #3	D-12D	-	0.15	-	-	-	-	-
DE-18 Flat Mixer, Mixer #4	D-14	-	0.23	-	-	-	-	-
DEV-22 Mixer, Mixer #5	D-4	-	0.23	-	-	-	-	-
Simpson Mixer #2	D-5	-	0.23	-	-	-	-	-
Simpson Mixer #3	D-6	-	0.23	-	-	-	-	-
Batch material receiving vessel vent	D-12E	0.0761	0.0135	-	-	-	-	-
Minor additives transport operations	D-20	0.0254	0.0006	-	-	-	-	-
Graphite transport operations	D-19	0.1514	0.005	-	-	-	-	-
Batch station transport operations	D-22	0.2284	0.0105	-	-	-	-	-
Resin-bonded materials handling, batching and pressing	D-12A	-	0.93	-	-	-	-	-
Lanly Bake Oven	S-7	-	0.84	-	-	-	-	-
Basic Dryer	S-8	-	3.02	-	-	-	-	-
Rotary Dryer	D-10	-	0.64	-	-	-	-	-
Tunnel Kiln #1, using natural gas as primary fuel and distillate oil as standby fuel.	S-6	-	4.5 each (two tunnel kilns operating), 8.4 (one tunnel kiln operating)	0.03	-	-	-	-
Tunnel Kiln #2, using natural gas as primary fuel and distillate oil as standby fuel.	S-3	-	4.5 each (two tunnel kilns operating), 8.4 (one tunnel kiln operating)	0.03	-	-	-	-
Tunnel Kiln #1, using natural gas as primary fuel and distillate oil as standby fuel.	S-6	-	4.5 each (two tunnel kilns operating), 8.4 (one tunnel kiln operating)	0.03	-	-	-	-
Montco Line	**S-30**	**1.795**	**1.316**	**-**	**-**	**-**	**-**	**-**
Total (lbs/hr) =		-	~~19.6996~~ **21.0156**	-	-	-	-	-
Total (Tons/yr) =		-	~~86.2842~~ **92.0492**	-	-	-	-	-

4. The Montco Line has been added under State Rule Applicability – Individual Facilities, 326 IAC 6-1-2(a) (Nonattainment Area Particulate Limitations) and further addressed under 326 IAC 6-1-10.1 (Lake County PM_{10} emission requirements) as follows:

State Rule Applicability - Individual Facilities

326 IAC 6-1-2(a) (Nonattainment Area Particulate Limitations)
Pursuant to 326 IAC 6-1-2(a), the PM emissions from the Batching Department (Emission Units PD-12E, PD-20, PD-19**,** ~~and~~ PD-22 **and PS-30**) shall be limited to 0.03 grain per dry standard cubic foot.

Emission Unit Description	Emission Unit ID #	PM Emission Limit (lbs/hr)
Batch material receiving vessel vent	PD-12E	0.0761
Minor additives transport operations	PD-20	0.0254
Graphite transport operations	PD-19	0.1514
Batch station transport operations	PD-22	0.2284
Montco Line	**PS-30**	**1.795**

Emission Units PD-12E, PD-20, PD-19**,** ~~and~~ PD-22 **and PS-30** are not subject to 326 IAC 6-1-10.1 (Lake County PM_{10} emission requirements) because these emission units are not listed in 326 IAC 6-1-10.1. These emission units are subject to 326 IAC 6-1-2(a) (Nonattainment Area Particulate Limitations).

5. Under State Rule Applicability – Individual Facilities, after 326 IAC 6-1-2(a) (Nonattainment Area Particulate Limitations), 326 IAC 6-1-2(h) has been added as follows:

   326 IAC 6-1-2(h) (Nonattainment Area Particulate Limitations)
   Pursuant to 326 IAC 6-1-2(h), the PM10 emissions from the Montco Line (Emission Unit PS-30) shall be limited to 0.022 grains per dry standard cubic foot, equivalent to 1.316 lbs/hr.

6. In the Testing Requirements table the Montco Line has been added as follows:

Emission Unit Description	Emission Unit ID #	PM_{10} Emission Limit (lbs/hr)	Flow rate (acfm)	Grain Loading (gr/dscf) or Maximum Rate Capacity (MMBtu/hr)	Control Efficiency (%)	Calculated PM10 Emission (lbs/hr)
Magnesite Handling & Storage – East Silos	PD-2	0.41	4,100	0.022	99.5	0.0039
Magnesite Handling & Storage – West Silos	PD-11	0.41	3,800	0.022	99.5	0.0036
Oversize Magnesite Crushing	PD-18	0.58	16,500	0.022	99.5	0.0155
Magnesite Classifying & Conveying to Storage Bins	PD-8(1), PD-8(2) and PD-8(3)	1.28	16,600	0.022	99.5	0.0156
Magnesite Classifying & Conveying to Storage Bins	PD-13(1), PD-13(2), and PD-13(3)	0.70	11,500	0.022	99.5	0.0108
Brick (Bats) crushing, Recycle refractory material and magnesite screening and crushing operations	PD-9	0.49	9,525	0.022	99.5	0.0089

RV-15 Mixers #1 and #2	PD-12B and PD-12C with common stack D-21	0.15 per dust collector, 0.30 at stack	800	0.022	99.5	0.0008
RV-15 Mixer #3	PD-12D	0.15	800	0.022	99.5	0.0008
DE-18 Flat Mixer, Mixer #4	PD-14	0.23	1,500	0.022	99.5	0.0014
DEV-22 Mixer, Mixer #5	PD-4	0.23	1,200	0.022	99.5	0.0011
Simpson Mixer #2	PD-5	0.23	1,125	0.022	99.5	0.0011
Simpson Mixer #3	PD-6	0.23	1,125	0.022	99.5	0.0011
Resin-bonded materials handling, batching and pressing	PD-12A	0.93	20,000	0.022	99.5	0.0188
Lanly Bake Oven	PS-7	0.84	NA	7.0 MMBtu/hr	NA	0.091
Basic Dryer	PS-8	3.02	28,000	13.5 MMBtu/hr	NA	0.1027* 0.0263**
Rotary Dryer	PD-10	0.64	7,420	3.5 MMBtu/hr	99.5	0.042* 0.0070**
Tunnel Kiln #1, using natural gas as primary fuel and distillate oil as standby fuel.	PS-6	4.5 each (two tunnel kilns operating), 8.4 (one tunnel kiln operating)	NA	40.0 MMBtu/hr	NA	0.3040
Tunnel Kiln #2, using natural gas as primary fuel and distillate oil as standby fuel.	PS-3	4.5 each (two tunnel kilns operating), 8.4 (one tunnel kiln operating)	NA	40.0 MMBtu/hr	NA	0.3040
Batch material receiving vessel vent	PD-12E	0.0135	300	0.022	99.5	0.0003
Minor additives transport operations	PD-20	0.0006	100	0.022	99.5	0.0001
Graphite transport operations	PD-19	0.005	600	0.022	99.5	0.0006
Batch station transport operations	PD-22	0.0105	900	0.022	99.5	0.0008
Montco Line	**PS-30**	**1.316**	**6980**	**0.022**	**98**	**0.0263**

* Emission value calculated by using Maximum rate capacity (MMBtu/hr).
** Emission value calculated by using Grain Loading (gr/dscf).

7. Emission unit PS-30 has been added under Compliance Requirements, 1. Visible Emission Notations as follows:

1. Visible Emission Notations
Visible emission notations of the emission units (PD-2, PD-11, PD-18, PD-8, PD-13, PD-9, PD-12B and PD-12C (common stack D-21), PD-12D, PD-14, PD-4, PD-5, PD-6, PD-12E, PD-20, PD-19, PD-22, PD-12A, PS-7, PS-8, PD-10, PS-6~~, and~~ PS-3**, and PS-30**) stacks exhaust shall be performed once per shift during normal daylight operations when these units are in operation. A trained employee shall record whether emissions are normal or abnormal.

8. Emission unit PS-30 has been added under Compliance Requirements, 2. Parametric Monitoring as follows:

2. Parametric Monitoring
The Permittee shall record the total static pressure drop across the baghouse used in conjunction with the Emission Units PD-2, PD-11, PD-18, PD-8, PD-13, PD-9, PD-12B, PD-12C, PD-12D, PD-14, PD-4, PD-5, PD-6, PD-12E, PD-20, PD-19, PD-22, PD-12A~~, and~~ PD-10**, and PS-30** at least once daily when the equipment is in operation. Unless operated under conditions for which the Compliance Response Plan specifies otherwise, the pressure drop across the baghouse shall be maintained within the range of 2.0 and 8.0 inches of water or a range established during the latest stack test. The Compliance Response Plan for these units shall contain troubleshooting contingency and response steps for when the pressure reading is outside of the above-mentioned range for any one reading.

Part 70 Operation Permit

1. Condition A.2 Emission Units and Pollution Control Equipment Summary has been modified to include 6. Montco Line.

   6. Montco Line: Dry batching, mixing, and packing of castable refractory consisting of:
   a. One (1) Pre-Batching Area with a bulk bag feed station and a manual bag break station,
   b. One (1) Montco Mixer, with elevated tote station, and
   c. One (1) Sacking Station.
   The Montco Line, identified as PS-30, constructed in 2001, has a maximum capacity of 10 tons per hour, uses a jet pulse cartridge dust collector (D-30) for particulate control, and exhausts to stack S-30.

2. Section D.6 Montco Line has been added to the Part 70 Operation Permit as follows:

SECTION D.6 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]:

Montco Line: Dry batching, mixing, and packing of castable refractory consisting of:
a. One (1) Pre-Batching Area with a bulk bag feed station and a manual bag break station,
b. One (1) Montco Mixer, with elevated tote station, and
c. One (1) Sacking Station.
The Montco Line, identified as PS-30, constructed in 2001, has a maximum capacity of 10 tons per hour, uses a jet pulse cartridge dust collector (D-30) for particulate control, and exhausts to stack S-30.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.6.1 Non-Attainment Area Particulate Limitations [326 IAC 6-1-2(a)] [326 IAC 6-1-2(h)] [326 IAC 2-2]

Pursuant to 326 IAC 6-1-2(a) and (h), the PM and PM10 emissions from the Montco Line exhaust stack S-30 shall not exceed the pounds per hour emission rates shown as follows:

Emission Unit ID and Description	PM Emission Limit 326 IAC 6-1-2(a)	PM10 Emission Limit 326 IAC 6-1-2(h)
Montco Line – Dry batching, mixing, and packing line Jet Pulse Cartridge Dust Collector (D-30) Stack (S-30)	0.03 gr/dscf equivalent to 1.8 lbs/hr	0.022 gr/dscf equivalent to 1.32 lbs/hr

Lake County is classified as moderate non-attainment for PM10, therefore 326 IAC 2-2, Prevention of Significant Deterioration (PSD) requirements do not apply to this modification.

D.6.2 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for these facilities and any control devices.

Compliance Determination Requirements

D.6.3 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

The commissioner may require stack testing, monitoring, or reporting at any time to assure compliance with all applicable requirements. Any monitoring or testing shall be performed in accordance with 326 IAC 3 or other methods approved by the commissioner or the U. S. EPA.

D.6.4 Particulate Matter (PM) and Particulate Matter less than 10 microns (PM10)

In order to comply with Condition D.6.1, the particulate control device (D-30) shall be in operation and control emissions from the Montco Line at all times when the emission units are in operation.

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

D.6.5 Visible Emissions Notations

(a) Visible emission notations of the Montco Line stack exhaust (S-30) shall be performed once per shift during normal daylight operations when the line is in operation. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) The Compliance Response Plan for these units shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C – Compliance Monitoring Plan – Failure to Take Response Steps, shall be considered a violation of this permit.

D.6.6 Parametric Monitoring

The Permittee shall record the total static pressure drop across the dust collector (D-30) used in conjunction with the Montco Line at least once per shift when the Montco Line is in operation. Unless operated under conditions for which the Compliance Response Plan specifies otherwise, the pressure drop across the dust collector shall be maintained within the range of 2.0 and 8.0 inches of water or a range established during the latest stack test. The Compliance Response Plan for these units shall contain troubleshooting contingency and response steps for when the pressure reading is outside of the above-mentioned range for any one reading. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan – Failure to Take Response Steps, shall be considered a violation of this permit.

The instrument used for determining the pressure shall comply with Section C - Pressure Gauge and Other Instrument Specifications, of this permit, shall be subject to approval by IDEM-OAQ and HDEM, and shall be calibrated at least once every six (6) months.

D.6.7 Baghouse / Dust Collector Inspections

An inspection shall be performed each calendar quarter of all bags or cartridges controlling the operations that vent to the atmosphere. A baghouse / dust collector inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting indoors. All defective bags or cartridges shall be replaced.

D.6.8 Broken or Failed Bag / Cartridge Detection

In the event that bag or cartridge failure has been observed:

(a) For multi-compartment units, the affected compartments shall be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if there are no visible emissions or if the event qualifies as an emergency and the Permittee satisfies the emergency provisions of this permit (Section B – Emergency Provisions). Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of

discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan – Failure to Take Response Steps, shall be considered a violation of this permit.

(b) For single compartment baghouses or dust collectors, failed units and the associated process shall be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

Record Keeping and Reporting Requirement [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.6.9 Record Keeping Requirements

(a) To document compliance with Condition D.6.5, the Permittee shall maintain records of daily visible emission notations for the Montco Line stack S-30.

(b) To document compliance with Condition D.6.6, the Permittee shall maintain the following:

Once per shift records of the following operational parameters during normal operation when venting to the atmosphere:

(B) Inlet and outlet differential static pressure; and

(B) Cleaning cycle operation.

(c) To document compliance with Condition D.6.7, the Permittee shall maintain records of the results of the inspections required under Condition D.6.7.

(d) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

Appendix A: Source Emissions Calculations has also been updated to include the Montco Line.

Indiana Department of Environmental Management
Office of Air Quality

and

Hammond Department of Environmental Management

Addendum to the
Technical Support Document for a Part 70 Operating Permit

Source Name:	**Resco Products, Inc.**
Source Location:	5501 Kennedy Avenue, Hammond, Indiana 46323
County:	Lake County
SIC Code:	3297 – Nonclay Refractories
Operation Permit No.:	T089-7791-00222
Permit Reviewer:	Debra Malone, HDEM

On January 3, 2001, the Hammond Department of Environmental Management (HDEM) had a notice published in the Times, Hammond, Indiana, stating that Resco Products, Inc. had applied for a Part 70 Operating Permit to manufacture Magnesite-Carbon and Alumina-Carbon resin-bonded refractory shapes. The notice also stated that HDEM proposed to issue a permit for this operation and provided information on how the public could review the proposed permit and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this permit should be issued as proposed. Comments were received during this period and are addressed below.

All references to the Office of Air Management have been changed to the Office of Air Quality and OAM to OAQ.

Upon further review, the HDEM has decided to make the following revisions to the permit (bolded language has been added, the language with a line through it has been deleted). The Table Of Contents has been modified to reflect these changes.

1. Condition A.1 (General Information), Source Status has been revised as follows:

   Source Status: Part 70 Permit Program
   ~~Major~~ **Minor** Source, under Emission Offset Rules;
   Major Source, Section 112 of the Clean Air Act

2. Condition A.2, 1., A), a., i., (Emission Units and Pollution Control Equipment Summary) has been revised as follows:

   A) Magnesite processing, consisting of the following emission units:

      a. Magnesite Handling & Storage – East Silos

         i. Equipment for unloading and initial screening of magnesite. Also includes equipment for conveying fine magnesite fractions to the east storage silos~~,~~ ~~I~~ **i**dentified as PD-2, constructed in 1993, with a maximum process rate of 35.0 tons per hour, using a baghouse as control, and exhausting to stack D-2.

3. Condition A.2, 1., B), a., (Emission Units and Pollution Control Equipment Summary) has been revised as follows:

B) Brick (Bats) crushing, consisting of the following emission units:

a. Recycle**d** refractory material and magnesite crushing and screening operations, identified as PD-9, constructed in 1956, at a maximum rate of 20.0 tons per hour, using a baghouse as control, and exhausting to stack D-9.

4. Condition B.7, (c), (Duty to Supplement and Provide Information) has been revised as follows:

(c) The Permittee may include a claim of confidentiality in accordance with 326 IAC 17. When furnishing copies of requested records directly to U. S. EPA**,** ~~. T~~**t**he Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

5. Condition B.8 (Compliance with Permit Conditions) has been revised to clarify that noncompliance with any requirement of this permit may result in an enforcement action against the permittee, an action to modify, revoke, reissue or terminate the source's permit, and/or a denial of the permittee's application to renew the permit. In addition, except for those permit conditions that are not federally enforceable, noncompliance is also a violation of the federal Clean Air Act.

B.8 Compliance with Permit Conditions [326 IAC 2-7-5(6)(A)] [326 IAC 2-7-5(6)(B)]

(a) The Permittee must comply with all conditions of this permit. Noncompliance with any provision~~s~~ of this permit~~, except those specifically designated as not federally enforceable, constitutes a violation of the Clean Air Act and~~ is grounds for:

(1) Enforcement action;

(2) Permit termination, revocation and reissuance, or modification; or

(3) Denial of a permit renewal application.

(b) Noncompliance with any provisions of this permit, except any provision specifically designated as not federally enforceable, constitutes a violation of the Clean Air Act.

(~~b~~**c**) It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

(~~c~~**d**) An emergency does constitute an affirmative defense in an enforcement action provided the Permittee complies with the applicable requirements set forth in Section B, Emergency Provisions.

6. Condition B.15 (Deviations from Permit Requirements and Conditions), under paragraph (b), (3) was changed to (c).

B.15 Deviations from Permit Requirements and Conditions [326 IAC 2-7-5(3)(C)(ii)]

(a) Deviations from any permit requirements (for emergencies see Section B - Emergency Provisions), the probable cause of such deviations, and any response steps or preventive measures taken shall be reported to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

and

Hammond Department of Environmental Management
5925 Calumet Avenue, Room 304
Hammond, Indiana 46320

using the attached Quarterly Deviation and Compliance Monitoring Report, or its equivalent. Deviations that are required to be reported by an applicable requirement shall be reported according to the schedule stated in the applicable requirement and do not need to be included in this report.

The notification by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(b) A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit or a rule. It does not include:

(1) An excursion from compliance monitoring parameters as identified in Section D of this permit unless tied to an applicable rule or limit; or

(2) Failure to implement elements of the Preventive Maintenance Plan unless such failure has caused or contributed to a deviation.

A Permittee's failure to take the appropriate response step when an excursion of a compliance monitoring parameter has occurred is a deviation.

(c) ~~(3)~~ Emergencies shall be included in the Quarterly Deviation and Compliance Monitoring Report.

7. Condition B.20 (Operational Flexibility) language has been added to the last sentence in paragraph (b).

B.20 Operational Flexibility [326 IAC 2-7-20] [326 IAC 2-7-10.5]

(a) The Permittee may make any change or changes at the source that are described in 326 IAC 2-7-20(b), (c), or (e), without a prior permit revision, if each of the following conditions is met:

(1) The changes are not modifications under any provision of Title I of the Clean Air Act;

(2) Any preconstruction approval required by 326 IAC 2-7-10.5 has been obtained;

(3) The changes do not result in emissions which exceed the emissions allowable under this permit (whether expressed herein as a rate of emissions or in terms of total emissions);

(4) The Permittee notifies the:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

and

Hammond Department of Environmental Management
5925 Calumet Avenue, Room 304
Hammond, Indiana 46320

and

United States Environmental Protection Agency, Region V
Air and Radiation Division, Regulation Development Branch - Indiana (AR-18J)
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

in advance of the change by written notification at least ten (10) days in advance of the proposed change. The Permittee shall attach every such notice to the Permittee's copy of this permit; and

(5) The Permittee maintains records on site which document, on a rolling five (5) year basis, all such changes and emissions trading that are subject to 326 IAC 2-7-20(b), (c), or (e) and makes such records available, upon reasonable request, for public review.

Such records shall consist of all information required to be submitted to IDEM-OAQ and HDEM in the notices specified in 326 IAC 2-7-20(b), (c)(1), and (e)(2).

(b) The Permittee may make Section 502(b)(10) of the Clean Air Act changes (this term is defined at 326 IAC 2-7-1(36)) without a permit revision, subject to the constraint of 326 IAC 2-7-20(a).

For each such Section 502(b)(10) of the Clean Air Act change, the required written notification shall include the following:

(1) A brief description of the change within the source;

(2) The date on which the change will occur;

(3) Any change in emissions; and

(4) Any permit term or condition that is no longer applicable as a result of the change.

The notification which shall be submitted **is not considered an application form, report or compliance certification. Therefore, the notification** by the Permittee does not require the certification by the “responsible official” as defined by 326 IAC 2-7-1(34).

8. Condition C.8 (Asbestos Abatement Projects), language has been changed at the end of the sentence in paragraph (f).

C.8 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

(f) Indiana Accredited Asbestos Inspector
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Accredited Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement that the inspector be accredited, **pursuant to the provisions of 40 CFR 61, Subpart M,** is federally enforceable.

9. Condition C.12 (Continuous Compliance Plan), language has been changed to include subsections (m) through (o) and (s) through (v).

C.12 Continuous Compliance Plan [326 IAC 6-1-10.1(l))]
Pursuant to 326 IAC 6-1-10.1(l) (Lake County PM10 Emission Requirements), the Permittee shall submit to IDEM-OAQ and HDEM, and maintain at the source a copy of the Continuous Compliance Plan (CCP) **as specified in 326 IAC 6-1-10.1(m) through (o)**. The Permittee shall perform the inspections, monitoring, and record keeping requirements as specified in 326 IAC 6-1-10.1(p) through (r) or according to the Permittee's CCP. **The Permittee shall also revise and update the CCP as specified in 326 IAC 6-1-10.1(s) through (v).**

10. Condition C.22 (General Reporting Requirements), paragraph (d), at the beginning of the last sentence, "The" has been replaced with "All".

(d) Unless otherwise specified in this permit, any quarterly report required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. ~~The~~**All** reports do require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

11. Section D.1 (Facility Description) has been revised as follows:

A) Magnesite processing, consisting of the following emission units:

a. Magnesite Handling & Storage – East Silos

i. Equipment for unloading and initial screening of magnesite. Also includes equipment for conveying fine magnesite fractions to the east storage silos**,**~~.~~ ~~I~~ **i**dentified as PD-2, constructed in 1993, with a maximum process rate of 35.0 tons per hour, using a baghouse as control, and exhausting to stack D-2.

and

B) Brick (Bats) crushing, consisting of the following emission units:

a. Recycle**d** refractory material and magnesite crushing and screening operations, identified as PD-9, constructed in 1956, at a maximum rate of 20.0 tons per hour, using a baghouse as control, and exhausting to stack D-9.

12. In all (Parametric Monitoring) conditions, Conditions D.1.6, D.2.6, D.3.7, and D.4.6, the total static pressure drop across each baghouse shall now be recorded at least once per shift instead of at least once daily as stated in the CCP in order to ensure continuous compliance. This change will fill the monitoring gap in the SIP since EPA declined to approve the CCP provisions. The changes are as follows:

D.1.6 Parametric Monitoring

The Permittee shall record the total static pressure drop across the baghouse used in conjunction with the Raw Material Processing Department operations (Emission Units PD-2, PD-11, PD-18, PD-8, PD-13, and PD-9) at least once ~~daily~~ **per shift** when the Raw Material Processing Department equipment is in operation. Unless operated under conditions for which the Compliance Response Plan specifies otherwise, the pressure drop across the baghouse shall be maintained within the range of 2.0 and 8.0 inches of water or a range established during the latest stack test. The Compliance Response Plan for these units shall contain troubleshooting contingency and response steps for when the pressure reading is outside of the above-mentioned range for any one reading. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan – Failure to Take Response Steps, shall be considered a violation of this permit.

The instrument used for determining the pressure shall comply with Section C - Pressure Gauge and Other Instrument Specifications, of this permit, shall be subject to approval by IDEM-OAQ and HDEM, and shall be calibrated at least once every six (6) months.

D.2.6 Parametric Monitoring

The Permittee shall record the total static pressure drop across the baghouse used in conjunction with the Mixing Department operations (Emission Units PD-12B, PD-12C, PD-12D, PD-14, PD-4, PD-5, and PD-6) at least once ~~daily~~ **per shift** when the Mixing Department equipment is in operation. Unless operated under conditions for which the Compliance Response Plan specifies otherwise, the pressure drop across the baghouse shall be maintained within the range of 2.0 and 8.0 inches of water or a range established during the latest stack test. The Compliance Response Plan for these units shall contain troubleshooting contingency and response steps for when the pressure reading is outside of the above-mentioned range for any one reading. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan – Failure to Take Response Steps, shall be considered a violation of this permit.

The instrument used for determining the pressure shall comply with Section C - Pressure Gauge and Other Instrument Specifications, of this permit, shall be subject to approval by IDEM-OAQ and HDEM, and shall be calibrated at least once every six (6) months.

D.3.7 Parametric Monitoring

The Permittee shall record the total static pressure drop across the baghouse used in conjunction with the Batching Department operations (Emission Units PD-12E, PD-20, PD-19, and PD-22) at least once ~~daily~~ **per shift** when the Batching Department equipment is in operation. Unless operated under conditions for which the Compliance Response Plan specifies otherwise, the pressure drop across the baghouse shall be maintained within the range of 2.0 and 8.0 inches of water or a range established during the latest stack test. The Compliance Response Plan for these units shall contain troubleshooting contingency and response steps for when the pressure reading is outside of the above-mentioned range for any one reading. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan – Failure to Take Response Steps, shall be considered a violation of this permit.

The instrument used for determining the pressure shall comply with Section C - Pressure Gauge and Other Instrument Specifications, of this permit, shall be subject to approval by IDEM-OAQ and HDEM, and shall be calibrated at least once every six (6) months.

D.4.6 Parametric Monitoring

The Permittee shall record the total static pressure drop across the baghouse used in conjunction with the Pressing Department operations (Emission Unit PD-12A) at least once ~~daily~~ **per shift** when the Pressing Department equipment is in operation. Unless operated under conditions for which the Compliance Response Plan specifies otherwise, the pressure drop across the baghouse shall be maintained within the range of 2.0 and 8.0 inches of water or a range established during the latest stack test. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when the pressure reading is outside of the above-mentioned range for any one reading. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan – Failure to Take Response Steps, shall be considered a violation of this permit.

The instrument used for determining the pressure shall comply with Section C - Pressure Gauge and Other Instrument Specifications, of this permit, shall be subject to approval by IDEM-OAQ and HDEM, and shall be calibrated at least once every six (6) months.

13. In order to be consistent with each Parametric Monitoring condition, the operational parameters in all (Record Keeping Requirements) conditions, Conditions D.1.9, D.2.9, D.3.10, and D.4.9, used to document compliance with the above-mentioned parametric monitoring requirements shall be recorded once per shift instead of daily. The changes are as follows:

D.1.9 Record Keeping Requirements

(a) To document compliance with Condition D.1.5, the Permittee shall maintain records of daily visible emission notations of the Raw Material Processing Department equipment (Emission Units PD-2, PD-11, PD-18, PD-8, PD-13, and PD-9) stack exhaust.

(b) To document compliance with Condition D.1.6, the Permittee shall maintain the following:

(1) ~~Daily~~ **Once per shift** records of the following operational parameters during normal operation when venting to the atmosphere:

(A) Inlet and outlet differential static pressure; and

(B) Cleaning cycle operation.

D.2.9 Record Keeping Requirements

(a) To document compliance with Condition D.2.5, the Permittee shall maintain records of daily visible emission notations of the Mixing Department equipment (Emission Units PD-12B and PD-12C (common stack D-21), PD-12D, PD-14, PD-4, PD-5, and PD-6) stack exhaust.

(b) To document compliance with Condition D.2.6, the Permittee shall maintain the following:

(1) ~~Daily~~ **Once per shift** records of the following operational parameters during normal operation when venting to the atmosphere:

(A) Inlet and outlet differential static pressure; and

(B) Cleaning cycle operation.

D.3.10 Record Keeping Requirements

(a) To document compliance with Condition D.3.6, the Permittee shall maintain records of daily visible emission notations of the Batching Department equipment (Emission Units PD-12E, PD-20, PD-19, and PD-22) stack exhaust.

(b) To document compliance with Condition D.3.7, the Permittee shall maintain the following:

(1) ~~Daily~~ **Once per shift** records of the following operational parameters during normal operation when venting to the atmosphere:

(A) Inlet and outlet differential static pressure; and

(B) Cleaning cycle operation.

D.4.9 Record Keeping Requirements

(a) To document compliance with Condition D.4.5, the Permittee shall maintain records of daily visible emission notations of the Pressing Department equipment (Emission Unit PD-12A) stack exhaust.

(b) To document compliance with Condition D.4.6, the Permittee shall maintain the following:

(1) ~~Daily~~ **Once per shift** records of the following operational parameters during normal operation when venting to the atmosphere:

(A) Inlet and outlet differential static pressure; and

(B) Cleaning cycle operation.

14. Condition D.5.4 (Testing Requirements) has been added to Section D.5 under Compliance Determination Requirements. Condition 5.4 reads as follows:

Compliance Determination Requirements

D.5.4 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

The commissioner may require stack testing, monitoring, or reporting at any time to assure compliance with all applicable requirements. Any monitoring or testing shall be performed in accordance with 326 IAC 3 or other methods approved by the commissioner or the U. S. EPA.

15. Condition D.5.6 (Parametric Monitoring) and Condition D.5.7 (Baghouse Inspections), now Conditions D.5.7 and D.5.8 has been added to Section D.5 under Compliance Monitoring Requirements. Conditions 5.7 and 5.8 read as follows:

D.5.7 Parametric Monitoring

The Permittee shall record the total static pressure drop across the baghouse used in conjunction with the Rotary Dryer (Emission Unit PD-10) at least once per shift when the Rotary Dryer is in operation. Unless operated under conditions for which the Compliance Response Plan specifies otherwise, the pressure drop across the baghouse shall be maintained within the range of 2.0 and 8.0 inches of water or a range established during the latest stack test. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when the pressure reading is outside of the above-mentioned range for any one reading. Failure

to take response steps in accordance with Section C - Compliance Monitoring Plan – Failure to Take Response Steps, shall be considered a violation of this permit.

The instrument used for determining the pressure shall comply with Section C - Pressure Gauge and Other Instrument Specifications, of this permit, shall be subject to approval by IDEM-OAQ and HDEM, and shall be calibrated at least once every six (6) months.

D.5.8 Baghouse Inspections

An inspection shall be performed each calendar quarter of all bags controlling the operations when venting to the atmosphere. A baghouse inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting to the indoors. All defective bags shall be replaced.

16. Condition D.5.9 (Record Keeping Requirements) has been revised as follows:

D.5.~~9~~**10** Record Keeping Requirements

(a) To document compliance with Condition D.5.2, the Permittee shall maintain records in accordance with (1) through (6) below. Records maintained for (1) through (6) shall be taken monthly and shall be complete and sufficient to establish compliance with the SO_2 emission limit established in Condition D.5.2.

(1) Calendar dates covered in the compliance determination period;

(2) Actual fuel oil usage since last compliance determination period and equivalent sulfur dioxide emissions;

(3) A certification, signed by the owner or operator, that the records of the fuel supplier certifications represent all of the fuel combusted during the period, the natural gas fired boiler certification does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34); and

If the fuel supplier certification is used to demonstrate compliance, the following, as a minimum, shall be maintained:

(4) Fuel supplier certifications;

(5) The name of the fuel supplier; and

(6) A statement from the fuel supplier that certifies the sulfur content of the fuel oil.

(b) To document compliance with Condition D.5.~~5~~**6**, the Permittee shall maintain records of daily visible emission notations of the Drying Department equipment (PS-7, PS-8, PS-6, and PS-3) stacks exhaust.

(c) To document compliance with Condition D.5.7, the Permittee shall maintain the following:

(1) Once per shift records of the following operational parameters during normal operation when venting to the atmosphere:

(A) Inlet and outlet differential static pressure; and

(B) Cleaning cycle operation.

(d) To document compliance with Condition D.5.8, the Permittee shall maintain records of the results of the inspections required under Condition D.5.8.

(~~c~~**e**) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

On June 27, 2001, Resco Products, Inc. submitted an application to the HDEM requesting to add a dry product mixing and packing operation to their existing plant. This operation is referred to as the Montco Line:

Montco Line: Dry batching, mixing, and packing of castable refractory consisting of:
(a) One (1) Pre-Batching Area with a bulk bag feed station and a manual bag break station,
(b) One (1) Montco Mixer, with elevated tote station, and
(c) One (1) Sacking Station.
The Montco Line has a maximum capacity of 10 tons per hour, uses a jet pulse cartridge dust collector (D-30) for particulate control, and exhausts to stack S-30.

This operation qualified as a Part 70 Minor Source Modification (089-14801-00222) pursuant to 326 IAC 2-7-10.5(d)(4)(A) – Less than twenty-five (25) tons per year and equal to or greater than five (5) tons per year of either particulate matter (PM) or particulate matter less than ten (10) microns (PM10). The Minor Source Modification was issued on September 26, 2001. The Part 70 Operating permit is being modified to include this Minor Source Modification prior to the EPA 15-day additional review.

Upon further review, the HDEM has decided to make the following revisions to the permit (bolded language has been added, the language with a line through it has been deleted). The Table Of Contents has been modified to reflect these changes.

Technical Support Document (TSD)

1. Under Permitted Emission Units and Pollution Control Equipment, 6. Montco Line has been added as follows:

6. Montco Line: Dry batching, mixing, and packing of castable refractory consisting of:
a. One (1) Pre-Batching Area with a bulk bag feed station and a manual bag break station,
b. One (1) Montco Mixer, with elevated tote station, and
c. One (1) Sacking Station.
The Montco Line, identified as PS-30, constructed in 2001, has a maximum capacity of 10 tons per hour, uses a jet pulse cartridge dust collector (D-30) for particulate control, and exhausts to stack S-30.

2. Under Existing Approvals, the Minor Source Modification (089-14801-00222) issued September 26, 2001 has been included as follows:

(z) MSM 089-14801-00222, issued on September 26, 2001.

3. In the Potential to Emit After Issuance table, the Montco Line has been added as follows:

Potential to Emit After Issuance

The table below summarizes the potential to emit, reflecting all limits, of the significant emission units after controls. The control equipment is considered federally enforceable only after issuance of this Part 70 operating permit.

Potential to Emit (tons/year)								
Process/facility	**Stack ID #**	**PM (lbs/hr)**	**PM-10 (lbs/hr)**	**SO_2 (lbs/MMBtu)**	**VOC**	**CO**	**NO_X**	**HAPs**
Magnesite Handling & Storage – East Silos	D-2	-	0.41	-	-	-	-	-
Magnesite Handling & Storage – West Silos	D-11	-	0.41	-	-	-	-	-
Oversize Magnesite Crushing	D-18	-	0.58	-	-	-	-	-
Magnesite Classifying & Conveying to Storage Bins	D-8	-	1.28	-	-	-	-	-
Magnesite Classifying & Conveying to Storage Bins	D-13	-	0.70	-	-	-	-	-
Brick (Bats) crushing, Recycle refractory material and magnesite screening and crushing operations	D-9	-	0.49	-	-	-	-	-
RV-15 Mixers #1 and #2	D-21	-	0.15 per dust collector, 0.30 at stack	-	-	-	-	-
RV-15 Mixer #3	D-12D	-	0.15	-	-	-	-	-
DE-18 Flat Mixer, Mixer #4	D-14	-	0.23	-	-	-	-	-
DEV-22 Mixer, Mixer #5	D-4	-	0.23	-	-	-	-	-
Simpson Mixer #2	D-5	-	0.23	-	-	-	-	-
Simpson Mixer #3	D-6	-	0.23	-	-	-	-	-
Batch material receiving vessel vent	D-12E	0.0761	0.0135	-	-	-	-	-
Minor additives transport operations	D-20	0.0254	0.0006	-	-	-	-	-
Graphite transport operations	D-19	0.1514	0.005	-	-	-	-	-
Batch station transport operations	D-22	0.2284	0.0105	-	-	-	-	-
Resin-bonded materials handling, batching and pressing	D-12A	-	0.93	-	-	-	-	-
Lanly Bake Oven	S-7	-	0.84	-	-	-	-	-
Basic Dryer	S-8	-	3.02	-	-	-	-	-
Rotary Dryer	D-10	-	0.64	-	-	-	-	-
Tunnel Kiln #1, using natural gas as primary fuel and distillate oil as standby fuel.	S-6	-	4.5 each (two tunnel kilns operating), 8.4 (one tunnel kiln operating)	0.03	-	-	-	-
Tunnel Kiln #2, using natural gas as primary fuel and distillate oil as standby fuel.	S-3	-	4.5 each (two tunnel kilns operating), 8.4 (one tunnel kiln operating)	0.03	-	-	-	-
Tunnel Kiln #1, using natural gas as primary fuel and distillate oil as standby fuel.	S-6	-	4.5 each (two tunnel kilns operating), 8.4 (one tunnel kiln operating)	0.03	-	-	-	-
Montco Line	**S-30**	**1.795**	**1.316**	**-**	**-**	**-**	**-**	**-**
Total (lbs/hr) =		-	~~19.6996~~ **21.0156**	-	-	-	-	-
Total (Tons/yr) =		-	~~86.2842~~ **92.0492**	-	-	-	-	-

4. The Montco Line has been added under State Rule Applicability – Individual Facilities, 326 IAC 6-1-2(a) (Nonattainment Area Particulate Limitations) and further addressed under 326 IAC 6-1-10.1 (Lake County PM_{10} emission requirements) as follows:

State Rule Applicability - Individual Facilities

326 IAC 6-1-2(a) (Nonattainment Area Particulate Limitations)
Pursuant to 326 IAC 6-1-2(a), the PM emissions from the Batching Department (Emission Units PD-12E, PD-20, PD-19**,** ~~and~~ PD-22 **and PS-30**) shall be limited to 0.03 grain per dry standard cubic foot.

Emission Unit Description	Emission Unit ID #	PM Emission Limit (lbs/hr)
Batch material receiving vessel vent	PD-12E	0.0761
Minor additives transport operations	PD-20	0.0254
Graphite transport operations	PD-19	0.1514
Batch station transport operations	PD-22	0.2284
Montco Line	**PS-30**	**1.795**

Emission Units PD-12E, PD-20, PD-19**,** ~~and~~ PD-22 **and PS-30** are not subject to 326 IAC 6-1-10.1 (Lake County PM_{10} emission requirements) because these emission units are not listed in 326 IAC 6-1-10.1. These emission units are subject to 326 IAC 6-1-2(a) (Nonattainment Area Particulate Limitations).

5. Under State Rule Applicability – Individual Facilities, after 326 IAC 6-1-2(a) (Nonattainment Area Particulate Limitations), 326 IAC 6-1-2(h) has been added as follows:

   326 IAC 6-1-2(h) (Nonattainment Area Particulate Limitations)
   Pursuant to 326 IAC 6-1-2(h), the PM10 emissions from the Montco Line (Emission Unit PS-30) shall be limited to 0.022 grains per dry standard cubic foot, equivalent to 1.316 lbs/hr.

6. In the Testing Requirements table the Montco Line has been added as follows:

Emission Unit Description	Emission Unit ID #	PM_{10} Emission Limit (lbs/hr)	Flow rate (acfm)	Grain Loading (gr/dscf) or Maximum Rate Capacity (MMBtu/hr)	Control Efficiency (%)	Calculated PM10 Emission (lbs/hr)
Magnesite Handling & Storage – East Silos	PD-2	0.41	4,100	0.022	99.5	0.0039
Magnesite Handling & Storage – West Silos	PD-11	0.41	3,800	0.022	99.5	0.0036
Oversize Magnesite Crushing	PD-18	0.58	16,500	0.022	99.5	0.0155
Magnesite Classifying & Conveying to Storage Bins	PD-8(1), PD-8(2) and PD-8(3)	1.28	16,600	0.022	99.5	0.0156
Magnesite Classifying & Conveying to Storage Bins	PD-13(1), PD-13(2), and PD-13(3)	0.70	11,500	0.022	99.5	0.0108
Brick (Bats) crushing, Recycle refractory material and magnesite screening and crushing operations	PD-9	0.49	9,525	0.022	99.5	0.0089

RV-15 Mixers #1 and #2	PD-12B and PD-12C with common stack D-21	0.15 per dust collector, 0.30 at stack	800	0.022	99.5	0.0008
RV-15 Mixer #3	PD-12D	0.15	800	0.022	99.5	0.0008
DE-18 Flat Mixer, Mixer #4	PD-14	0.23	1,500	0.022	99.5	0.0014
DEV-22 Mixer, Mixer #5	PD-4	0.23	1,200	0.022	99.5	0.0011
Simpson Mixer #2	PD-5	0.23	1,125	0.022	99.5	0.0011
Simpson Mixer #3	PD-6	0.23	1,125	0.022	99.5	0.0011
Resin-bonded materials handling, batching and pressing	PD-12A	0.93	20,000	0.022	99.5	0.0188
Lanly Bake Oven	PS-7	0.84	NA	7.0 MMBtu/hr	NA	0.091
Basic Dryer	PS-8	3.02	28,000	13.5 MMBtu/hr	NA	0.1027* 0.0263**
Rotary Dryer	PD-10	0.64	7,420	3.5 MMBtu/hr	99.5	0.042* 0.0070**
Tunnel Kiln #1, using natural gas as primary fuel and distillate oil as standby fuel.	PS-6	4.5 each (two tunnel kilns operating), 8.4 (one tunnel kiln operating)	NA	40.0 MMBtu/hr	NA	0.3040
Tunnel Kiln #2, using natural gas as primary fuel and distillate oil as standby fuel.	PS-3	4.5 each (two tunnel kilns operating), 8.4 (one tunnel kiln operating)	NA	40.0 MMBtu/hr	NA	0.3040
Batch material receiving vessel vent	PD-12E	0.0135	300	0.022	99.5	0.0003
Minor additives transport operations	PD-20	0.0006	100	0.022	99.5	0.0001
Graphite transport operations	PD-19	0.005	600	0.022	99.5	0.0006
Batch station transport operations	PD-22	0.0105	900	0.022	99.5	0.0008
Montco Line	**PS-30**	**1.316**	**6980**	**0.022**	**98**	**0.0263**

* Emission value calculated by using Maximum rate capacity (MMBtu/hr).
** Emission value calculated by using Grain Loading (gr/dscf).

7. Emission unit PS-30 has been added under Compliance Requirements, 1. Visible Emission Notations as follows:

1. Visible Emission Notations
Visible emission notations of the emission units (PD-2, PD-11, PD-18, PD-8, PD-13, PD-9, PD-12B and PD-12C (common stack D-21), PD-12D, PD-14, PD-4, PD-5, PD-6, PD-12E, PD-20, PD-19, PD-22, PD-12A, PS-7, PS-8, PD-10, PS-6~~, and~~ PS-3**, and PS-30**) stacks exhaust shall be performed once per shift during normal daylight operations when these units are in operation. A trained employee shall record whether emissions are normal or abnormal.

8. Emission unit PS-30 has been added under Compliance Requirements, 2. Parametric Monitoring as follows:

2. Parametric Monitoring
The Permittee shall record the total static pressure drop across the baghouse used in conjunction with the Emission Units PD-2, PD-11, PD-18, PD-8, PD-13, PD-9, PD-12B, PD-12C, PD-12D, PD-14, PD-4, PD-5, PD-6, PD-12E, PD-20, PD-19, PD-22, PD-12A~~, and~~ PD-10**, and PS-30** at least once daily when the equipment is in operation. Unless operated under conditions for which the Compliance Response Plan specifies otherwise, the pressure drop across the baghouse shall be maintained within the range of 2.0 and 8.0 inches of water or a range established during the latest stack test. The Compliance Response Plan for these units shall contain troubleshooting contingency and response steps for when the pressure reading is outside of the above-mentioned range for any one reading.

Part 70 Operation Permit

1. Condition A.2 Emission Units and Pollution Control Equipment Summary has been modified to include 6. Montco Line.

   6. Montco Line: Dry batching, mixing, and packing of castable refractory consisting of:
   a. One (1) Pre-Batching Area with a bulk bag feed station and a manual bag break station,
   b. One (1) Montco Mixer, with elevated tote station, and
   c. One (1) Sacking Station.
   The Montco Line, identified as PS-30, constructed in 2001, has a maximum capacity of 10 tons per hour, uses a jet pulse cartridge dust collector (D-30) for particulate control, and exhausts to stack S-30.

2. Section D.6 Montco Line has been added to the Part 70 Operation Permit as follows:

SECTION D.6 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]:

Montco Line: Dry batching, mixing, and packing of castable refractory consisting of:
a. One (1) Pre-Batching Area with a bulk bag feed station and a manual bag break station,
b. One (1) Montco Mixer, with elevated tote station, and
c. One (1) Sacking Station.
The Montco Line, identified as PS-30, constructed in 2001, has a maximum capacity of 10 tons per hour, uses a jet pulse cartridge dust collector (D-30) for particulate control, and exhausts to stack S-30.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.6.1 Non-Attainment Area Particulate Limitations [326 IAC 6-1-2(a)] [326 IAC 6-1-2(h)] [326 IAC 2-2]

Pursuant to 326 IAC 6-1-2(a) and (h), the PM and PM10 emissions from the Montco Line exhaust stack S-30 shall not exceed the pounds per hour emission rates shown as follows:

Emission Unit ID and Description	PM Emission Limit 326 IAC 6-1-2(a)	PM10 Emission Limit 326 IAC 6-1-2(h)
Montco Line – Dry batching, mixing, and packing line Jet Pulse Cartridge Dust Collector (D-30) Stack (S-30)	0.03 gr/dscf equivalent to 1.8 lbs/hr	0.022 gr/dscf equivalent to 1.32 lbs/hr

Lake County is classified as moderate non-attainment for PM10, therefore 326 IAC 2-2, Prevention of Significant Deterioration (PSD) requirements do not apply to this modification.

D.6.2 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for these facilities and any control devices.

Compliance Determination Requirements

D.6.3 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

The commissioner may require stack testing, monitoring, or reporting at any time to assure compliance with all applicable requirements. Any monitoring or testing shall be performed in accordance with 326 IAC 3 or other methods approved by the commissioner or the U. S. EPA.

D.6.4 Particulate Matter (PM) and Particulate Matter less than 10 microns (PM10)

In order to comply with Condition D.6.1, the particulate control device (D-30) shall be in operation and control emissions from the Montco Line at all times when the emission units are in operation.

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

D.6.5 Visible Emissions Notations

(a) Visible emission notations of the Montco Line stack exhaust (S-30) shall be performed once per shift during normal daylight operations when the line is in operation. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) The Compliance Response Plan for these units shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C – Compliance Monitoring Plan – Failure to Take Response Steps, shall be considered a violation of this permit.

D.6.6 Parametric Monitoring

The Permittee shall record the total static pressure drop across the dust collector (D-30) used in conjunction with the Montco Line at least once per shift when the Montco Line is in operation. Unless operated under conditions for which the Compliance Response Plan specifies otherwise, the pressure drop across the dust collector shall be maintained within the range of 2.0 and 8.0 inches of water or a range established during the latest stack test. The Compliance Response Plan for these units shall contain troubleshooting contingency and response steps for when the pressure reading is outside of the above-mentioned range for any one reading. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan – Failure to Take Response Steps, shall be considered a violation of this permit.

The instrument used for determining the pressure shall comply with Section C - Pressure Gauge and Other Instrument Specifications, of this permit, shall be subject to approval by IDEM-OAQ and HDEM, and shall be calibrated at least once every six (6) months.

D.6.7 Baghouse / Dust Collector Inspections

An inspection shall be performed each calendar quarter of all bags or cartridges controlling the operations that vent to the atmosphere. A baghouse / dust collector inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting indoors. All defective bags or cartridges shall be replaced.

D.6.8 Broken or Failed Bag / Cartridge Detection

In the event that bag or cartridge failure has been observed:

(a) For multi-compartment units, the affected compartments shall be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if there are no visible emissions or if the event qualifies as an emergency and the Permittee satisfies the emergency provisions of this permit (Section B – Emergency Provisions). Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of

discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan – Failure to Take Response Steps, shall be considered a violation of this permit.

(b) For single compartment baghouses or dust collectors, failed units and the associated process shall be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

Record Keeping and Reporting Requirement [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.6.9 Record Keeping Requirements

(a) To document compliance with Condition D.6.5, the Permittee shall maintain records of daily visible emission notations for the Montco Line stack S-30.

(b) To document compliance with Condition D.6.6, the Permittee shall maintain the following:

Once per shift records of the following operational parameters during normal operation when venting to the atmosphere:

(B) Inlet and outlet differential static pressure; and

(B) Cleaning cycle operation.

(c) To document compliance with Condition D.6.7, the Permittee shall maintain records of the results of the inspections required under Condition D.6.7.

(d) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

Appendix A: Source Emissions Calculations has also been updated to include the Montco Line.

Indiana Department of Environmental Management
Office of Air Quality

and

Hammond Department of Environmental Management

Technical Support Document (TSD) for a Part 70 Operating Permit

Source Background and Description

Source Name:	Resco Products, Inc.
Source Location:	5501 Kennedy Avenue, Hammond, Indiana 46323
County:	Lake County
SIC Code:	3297-Nonclay Refractories
Operation Permit No.:	T089-7791-00222
Permit Reviewer:	Debra Malone, HDEM

The Hammond Department of Environmental Management (HDEM) has reviewed a Part 70 permit application from Resco Products, Inc. relating to the operation of equipment used to manufacture Magnesite-Carbon and Alumina-Carbon resin-bonded refractory shapes.

Permitted Emission Units and Pollution Control Equipment

The source consists of the following permitted emission units and pollution control devices:

1. Raw Material Processing Department

   A) Magnesite processing, consisting of the following emission units:

      a. Magnesite Handling & Storage – East Silos

         i. Equipment for unloading and initial screening of magnesite. Also includes equipment for conveying fine magnesite fractions to the east storage silos. Identified as PD-2, constructed in 1993, with a maximum process rate of 35.0 tons per hour, using a baghouse as control, and exhausting to stack D-2.

      b. Magnesite Handling & Storage – West Silos

         i. Equipment for conveying coarse magnesite fractions to the west storage silos, identified as PD-11, constructed in 1992, at a maximum rate of 20 tons per hour, using a baghouse as control, and exhausting to stack D-11.

c. Oversize Magnesite Crushing

i. Equipment for crushing oversize magnesite, screening and conveying to respective east or west storage silos, identified as PD-18, constructed in 1971, at a maximum rate of 35.0 tons per hour, using a baghouse as control, and exhausting to stack D-18.

d. Magnesite Classifying & Conveying to Storage Bins

i. Equipment for screening, milling, and conveying magnesite from the east silos to storage bins for batching. Identified as PD-8(1), PD-8(2), and PD-8(3), constructed in 1956, at a maximum rate of 25.0 tons per hour, 8.3 tons per hour and 25.0 tons per hour, respectively, using a baghouse as control, and exhausting to stack D-8.

ii. Equipment for screening, milling, and conveying magnesite from the west silos to storage bins for batching. Identified as PD-13(1), PD-13(2), and PD-13(3), constructed in 1956, at a maximum rate of 16.0 tons per hour, 6.0 tons per hour, and 16.0 tons per hour respectively, using a baghouse as control, and exhausting to stack D-13.

B) Brick (Bats) crushing, consisting of the following emission units:

a. Recycle refractory material and magnesite crushing and screening operations, identified as PD-9, constructed in 1956, at a maximum rate of 20.0 tons per hour, using a baghouse as control, and exhausting to stack D-9.

2. Mixing Department

A) Mixing Equipment, consisting of the following emission units:

a. Three (3) RV-15 Mixers of resin-bonded refractory materials, consisting of the following emission units:

i. RV-15 Mixers #1 and #2, identified as PD-12B (constructed in 1984) and PD-12C (constructed in 1988), each with a maximum capacity of 4.25 tons per hour, using separate baghouses as control, and exhausting to a common stack D-21.

ii. RV-15 Mixer #3, identified as PD-12D, constructed in 1993, with a maximum capacity of 4.25 tons per hour, using a baghouse as control, and exhausting to stack D-12D.

b. DE-18 Flat Mixer, Mixer #4, identified as PD-14, constructed in 1993, with a maximum capacity of 11.2 tons per hour, using a baghouse as control, and exhausting to stack D-14.

c. DEV-22 Mixer, Mixer #5, identified as PD-4, constructed in 1996, with a maximum capacity of 11.2 tons per hour, using a baghouse as control, and exhausting to stack D-4.

d. Simpson Mixer #2, identified as PD-5, constructed in 1956, with a maximum capacity of 11.2 tons per hour, using a baghouse as control, and exhausting to stack D-5.

e. Simpson Mixer #3, identified as PD-6, constructed in 1956, with a maximum capacity of 11.2 tons per hour, using a baghouse as control, and exhausting to stack D-6.

3. Batching Department

   A) Material transport operations, consisting of the following emission units:

      a. Material Receiving Vessel, identified as PD-12E, constructed in 1993, with a maximum capacity of 18.0 tons per hour, using a baghouse as control, and exhausting to stack D-12E.

      b. Minor Additive Transport Operations, identified as PD-20, constructed in 1993, with a maximum capacity of 0.75 tons per hour, using a baghouse as control, and exhausting to stack D-20.

      c. Graphite Transport Operations, identified as PD-19, constructed in 1993, with a maximum capacity of 6.0 tons per hour, using a baghouse as control, and exhausting to stack D-19.

      d. Batch Station Transport Operations, identified as PD-22, constructed in 1996, with a maximum capacity of 14.0 tons per hour, using a baghouse as control, and exhausting to stack D-22.

4. Pressing Department, consisting of the following emission units:

   A) Resin-bonded materials handling, batching and pressing, identified as PD-12A, constructed in 1996, with a maximum capacity of 10.9 tons per hour, using a baghouse as control, and exhausting to stack D-12A.

5. Drying Department, consisting of the following emission units:

   A) Lanly Bake Oven, using only natural gas, identified as PS-7, constructed in 1957, with a maximum capacity of 7.0 million British thermal units per hour (MMBtu/hr), and maximum drying capacity of 4.0 tons per hour and exhausting to stack S-7.

   B) Basic Dryer, using only natural gas, identified as PS-8, constructed in 1957, with a maximum capacity of 13.5 million British thermal units per hour (MMBtu/hr), and maximum drying capacity of 7.6 tons per hour and exhausting to stack S-8.

   C) Rotary Dryer, using only natural gas, identified as PD-10, constructed in 1957, with a maximum capacity of 3.5 million British thermal units per hour (MMBtu/hr), and maximum drying capacity of 20.0 tons per hour, using a cyclone in series with a baghouse as control and exhausting to stack D-10.

   D) Tunnel Kiln #1, using natural gas as primary fuel and distillate oil as standby fuel, identified as PS-6, constructed in 1956, with a maximum capacity of 40.0 million British thermal units per hour (MMBtu/hr) maximum drying capacity of 4.2 tons per hour, and exhausting to stack S-6.

   E) Tunnel Kiln #2, using natural gas as primary fuel and distillate oil as standby fuel, identified as PS-3, constructed in 1970, with a maximum capacity of 40.0 million British thermal units per hour (MMBtu/hr) maximum drying capacity of 4.2 tons per hour, and exhausting to stack S-3.

6. Montco Line: Dry batching, mixing, and packing of castable refractory consisting of:
   a. One (1) Pre-Batching Area with a bulk bag feed station and a manual bag break station,
   b. One (1) Montco Mixer, with elevated tote station, and
   c. One (1) Sacking Station.

The Montco Line, identified as PS-30, constructed in 2001, has a maximum capacity of 10 tons per hour, uses a jet pulse cartridge dust collector (D-30) for particulate control, and exhausts to stack S-30.

Unpermitted Emission Units and Pollution Control Equipment

There are no unpermitted facilities operating at this source during this review process.

Insignificant Activities

The source also consists of the following insignificant activities, as defined in 326 IAC 2-7-1(21):

1) Space heaters, process heaters, or boilers using natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) Btu per hour.

2) Equipment powered by internal combustion engines of capacity equal to or less than 500,000 Btu/hour, except where total capacity of equipment operated by one stationary source exceeds 2,000,000 Btu/hour.

3) Combustion source flame safety purging on startup.

4) VOC and HAP vessels storing lubricating oils, hydraulic oils, machining oils, and machining fluids.

5) Refractory storage not requiring air pollution control equipment.

6) Machining where an aqueous cutting coolant continuously floods the machining interface.

7) Any operation using aqueous solutions containing less than 1% by weight of VOC excluding HAPs.

8) Replacement or repair of electrostatic precipitators, bags in baghouses and filters in other air filtration equipment.

9) Paved and unpaved roads and parking lots with public access.

10) Purging of gas lines and vessels that is related to routine maintenance and repair of buildings, structures, or vehicles from the source where air emissions from those activities would not be associated with any production process.

11) Blowdown for any of the following: sight glass; boiler; compressors; pumps; and cooling tower.

12) Emergency gasoline generators not exceeding 110 horsepower.

13) Stationary fire pumps.

14) Purge double block and bleed valves.

15) Mold release agents using low volatile products (vapor pressure less than or equal to 2 kilopascals measured at 38 degrees C).

16) A laboratory as defined in 326 IAC 2-7-1(21)(D).

Existing Approvals

The source has been operating under previous approvals including, but not limited to, the following:

(a) CP 00004, issued on January 3, 1996.
(b) CP 327, issued on December 6, 1991.
(c) CP 348, issued on April 10, 1992.
(d) CP 349, issued on April 10, 1992.
(e) CP 350, issued on April 10, 1992.
(f) CP 351, issued on April 10, 1992.
(g) CP 365, issued on October 20, 1992.
(h) CP 366, issued on October 20, 1992.
(i) CP 378, issued on July 8, 1993.
(j) CP 384, issued on August 9, 1993.
(k) CP 385, issued on August 9, 1993.
(l) CP 0402, issued on December 14, 1993.
(m) CP 0403, issued on December 14, 1993.
(n) CP 0404, issued on December 14, 1993.
(o) CP 0405, issued on December 14, 1993.
(p) CP 0406, issued on December 14, 1993.
(q) CP 0407, issued on December 14, 1993.
(r) CP 0408, issued on December 14, 1993.
(s) CP 0409, issued on December 14, 1993.
(t) CP 0430, issued on June 8, 1994.
(u) CP 450, issued on April 3, 1996.
(v) CP 451, issued on April 3, 1996.
(w) CP 452, issued on April 3, 1996.
(x) CP 453, issued on April 3, 1996.
(y) CP 00527, issued on October 16, 1996.
(z) MSM 089-14801-00222, issued on September 26, 2001.

Enforcement Issue

There are no enforcement actions pending.

Recommendation

The staff recommends to the Commissioner that the Part 70 permit be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An administratively complete Part 70 permit application for the purposes of this review was received on December 13, 1996.

A notice of completeness letter was mailed to the source on February 13, 1997.

Emission Calculations

See Appendix A of this document for detailed emissions calculations.

Potential To Emit

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as "the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA."

This table reflects the PTE before controls. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Pollutant	Potential To Emit (tons/year)
PM	greater than 100
PM-10	greater than 100
SO_2	less than 100
VOC	less than 25
CO	less than 100
NO_x	less than 100

Note: For the purpose of determining Title V applicability for particulates, PM-10, not PM, is the regulated pollutant in consideration.

HAP's	Potential To Emit (tons/year)
Lead	less than 10
Formaldehyde	less than 10
Phenol	greater than 10
TOTAL	greater than 25

(a) The potential to emit (as defined in 326 IAC 2-1.1-1(16)) of PM and PM10 are equal to or greater than 100 tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7.

(b) Fugitive Emissions
Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive emissions are not counted toward determination of PSD and Emission Offset applicability.

Actual Emissions

The following table shows the actual emissions from the source. This information reflects the 1999 OAQ emission data.

Pollutant	Actual Emissions (tons/year)
PM	less than 100
PM-10	less than 100
SO_2	less than 100
VOC	less than 25
CO	less than 100
NO_x	less than 100
HAP (single)	
Formaldehyde	less than 10
Phenol	greater than 10
HAPs (combined)	less than 25

Potential to Emit After Issuance

The table below summarizes the potential to emit, reflecting all limits, of the significant emission units after controls. The control equipment is considered federally enforceable only after issuance of this Part 70 operating permit.

Potential to Emit (tons/year)								
Process/facility	**Stack ID #**	**PM (lbs/hr)**	**PM-10 (lbs/hr)**	**SO_2 (lbs/MMBtu)**	**VOC**	**CO**	**NO_X**	**HAPs**
Magnesite Handling & Storage – East Silos	D-2	-	0.41	-	-	-	-	-
Magnesite Handling & Storage – West Silos	D-11	-	0.41	-	-	-	-	-
Oversize Magnesite Crushing	D-18	-	0.58	-	-	-	-	-
Magnesite Classifying & Conveying to Storage Bins	D-8	-	1.28	-	-	-	-	-
Magnesite Classifying & Conveying to Storage Bins	D-13	-	0.70	-	-	-	-	-
Brick (Bats) crushing, Recycle refractory material and magnesite screening and crushing operations	D-9	-	0.49	-	-	-	-	-
RV-15 Mixers #1 and #2	D-21	-	0.15 per dust collector, 0.30 at stack	-	-	-	-	-
RV-15 Mixer #3	D-12D	-	0.15	-	-	-	-	-
DE-18 Flat Mixer, Mixer #4	D-14	-	0.23	-	-	-	-	-
DEV-22 Mixer, Mixer #5	D-4	-	0.23	-	-	-	-	-
Simpson Mixer #2	D-5	-	0.23	-	-	-	-	-
Simpson Mixer #3	D-6	-	0.23	-	-	-	-	-
Batch material receiving vessel vent	D-12E	0.0761	0.0135	-	-	-	-	-
Minor additives transport operations	D-20	0.0254	0.0006	-	-	-	-	-
Graphite transport operations	D-19	0.1514	0.005	-	-	-	-	-
Batch station transport operations	D-22	0.2284	0.0105	-	-	-	-	-
Resin-bonded materials handling, batching and pressing	D-12A	-	0.93	-	-	-	-	-
Lanly Bake Oven	S-7	-	0.84	-	-	-	-	-
Basic Dryer	S-8	-	3.02	-	-	-	-	-
Rotary Dryer	D-10	-	0.64	-	-	-	-	-
Tunnel Kiln #1, using natural gas as primary fuel and distillate oil as standby fuel.	S-6	-	4.5 each (two tunnel kilns operating), 8.4 (one tunnel kiln operating)	0.03	-	-	-	-
Tunnel Kiln #2, using natural gas as primary fuel and distillate oil as standby fuel.	S-3	-	4.5 each (two tunnel kilns operating), 8.4 (one tunnel kiln operating)	0.03	-	-	-	-
Montco Line	S-30	1.795	1.316	-	-	-	-	-
Total (lbs/hr) =		-	21.0156	-	-	-	-	-
Total (Tons/yr) =		-	92.0492	-	-	-	-	-

County Attainment Status

The source is located in Lake County.

Pollutant	Status
PM-10	Moderate-Nonattainment
SO_2	Primary Nonattainment
NO_2	Attainment/Unclassifiable
Ozone	Severe-Nonattainment
CO	Attainment/Unclassifiable
Lead	Attainment

(a) Volatile organic compounds (VOC) and oxides of nitrogen (NOx) are precursors for the formation of ozone. Therefore, VOC and NO_X emissions are considered when evaluating the rule applicability relating to the ozone standards. Lake County has been designated as nonattainment for ozone. Therefore, VOC and NOx emissions were reviewed pursuant to the requirements for Emission Offset, 326 IAC 2-3.

(b) Lake County has been classified as nonattainment for PM-10, SO_2 and Ozone. Therefore, these emissions were reviewed pursuant to the requirements for Emission Offset, 326 IAC 2-3.

(c) Fugitive Emissions
Since this type of operation is not one of the 28 listed source categories under 326 IAC 2-2 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive emissions are not counted toward determination of PSD and Emission Offset applicability.

Part 70 Permit Conditions

This source is subject to the requirements of 326 IAC 2-7, pursuant to which the source has to meet the following:

(a) Emission limitations and standards, including those operational requirements and limitations that assure compliance with all applicable requirements at the time of issuance of Part 70 permits.

(b) Monitoring and related record keeping requirements which assume that all reasonable information is provided to evaluate continuous compliance with the applicable requirements.

Federal Rule Applicability

(a) There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) applicable to this source.

(b) The facility is not subject to 40 CFR Part 60.67 Subpart OOO, Standards of Performance for Nonmetallic Mineral Processing Plants because the facility is not involved in the processing of nonmetallic minerals as defined in 40 CFR Part 60.671, Definitions.

(c) The facility is not subject to 40 CFR Part 60.38 Subpart LL, Standards of Performance for Metallic Mineral Processing Plants because the facility is not involved in the processing of metallic minerals as defined in 40 CFR Part 60.381, Definitions.

(d) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14 and 40 CFR Part 63) applicable to this source.

State Rule Applicability - Entire Source

326 IAC 1-5-2 (Emergency Reduction Plans)
The source has submitted an Emergency Reduction Plan (ERP) in February 1991. The ERP has been verified to fulfill the requirements of 326 IAC 1-5-2 (Emergency Reduction Plans).

326 IAC 1-6-3 (Preventive Maintenance Plan)
The source has submitted a Preventive Maintenance Plan (PMP) on October 2, 1997. This PMP has been verified to fulfill the requirements of 326 IAC 1-6-3 (Preventive Maintenance Plan).

326 IAC 2-6 (Emission Reporting)
This source is subject to 326 IAC 2-6 (Emission Reporting), because it has the potential to emit more than ten (10) tons per year of NOx. Pursuant to this rule, the owner/operator of the source must annually submit an emission statement for the source. The annual statement must be received by April 15 of each year and contain the minimum requirement as specified in 326 IAC 2-6-4. The submittal should cover the period defined in 326 IAC 2-6-2(8)(Emission Statement Operating Year).

The source is in compliance with the required emission statement submittals.

326 IAC 5-1-2 (Opacity Limitations)
Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

(a) Opacity shall not exceed an average of twenty percent (20%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

No violations of the opacity standards have been observed at this source.

326 IAC 6-1-11.1 (Lake County Fugitive Particulate Matter Control Requirements)
Pursuant to this rule, the Permittee shall be in violation if the opacity of fugitive particulate emissions exceeds ten percent (10%).

326 IAC 6-1-11.2 (Lake County Particulate Matter Contingency Measures)
Pursuant to this rule, the Permittee shall comply with the applicable provisions of 326 IAC 6-1-11.2 (Lake County Particulate Matter Contingency Measures).

326 IAC 8 (Volatile Organic Compound Rules)
These sources are not subject to 326 IAC 8 (VOC Rules) because their individual and combined VOC potential to emit is less than the applicability threshold of fifteen (15) pounds per day.

326 IAC 8-7 (Specific VOC Reduction Requirement for Lake, Porter, Clark, and Floyd Counties)
These sources are not subject to 326 IAC 8-7 (Specific VOC Reduction Requirement for Lake, Porter, Clark, and Floyd Counties), because their individual and combined VOC potential to emit is less than the applicability threshold of twenty-five (25) tons per year.

State Rule Applicability - Individual Facilities

326 IAC 6-1-2(a) (Nonattainment Area Particulate Limitations)
Pursuant to 326 IAC 6-1-2(a), the PM emissions from the Batching Department (Emission Units PD-12E, PD-20, PD-19, PD-22 and PS-30) shall be limited to 0.03 grain per dry standard cubic foot.

Emission Unit Description	Emission Unit ID #	PM Emission Limit (lbs/hr)
Batch material receiving vessel vent	PD-12E	0.0761
Minor additives transport operations	PD-20	0.0254
Graphite transport operations	PD-19	0.1514
Batch station transport operations	PD-22	0.2284
Montco Line	PS-30	1.795

326 IAC 6-1-2(h) (Nonattainment Area Particulate Limitations)
Pursuant to 326 IAC 6-1-2(h), the PM10 emissions from the Montco Line (Emission Unit PS-30) shall be limited to 0.022 grains per dry standard cubic foot, equivalent to 1.316 lbs/hr.

Emission Units PD-2, PD-11, PD-18, PD-8(1), PD-8(2) and PD-8(3), PD-13(1), PD-13(2), and PD-13(3), PD-9, PD-12B, PD-12C, PD-12D, PD-14, PD-4, PD-5, PD-6, PD-12A, PS-7, PS-8, PD-10, PS-6 and PS-3 are not subject to 326 IAC 6-1-2(a) (Nonattainment Area Particulate Limitations) because these emission units are listed in 326 IAC 6-1-10.1 (Lake County PM_{10} emission requirements) and therefore, are subject to the limitations in 326 IAC 6-1-10.1.

326 IAC 6-1-10.1 (Lake County PM_{10} emission requirements)
Pursuant to 326 IAC 6-1-10.1(d), the PM_{10} from the following emission units shall not exceed the pounds per hour emission rates listed below:

Emission Unit Description	Emission Unit ID #	PM_{10} Emission Limit (lbs/Ton)	PM_{10} Emission Limit (lbs/hr)
Magnesite Handling & Storage – East Silos	PD-2	0.012	0.41
Magnesite Handling & Storage – West Silos	PD-11	0.020	0.41
Oversize Magnesite Crushing	PD-18	0.017	0.58
Magnesite Classifying & Conveying to Storage Bins	PD-8(1), PD-8(2) and PD-8(3)	0.051	1.28
Magnesite Classifying & Conveying to Storage Bins	PD-13(1), PD-13(2), and PD-13(3)	0.044	0.70
Brick (Bats) crushing, Recycle refractory material and magnesite screening and crushing operations	PD-9	0.024	0.49
RV-15 Mixers #1 and #2	PD-12B and PD-12C with common stack D-21	0.018	0.15 per dust collector, 0.30 at stack
RV-15 Mixer #3	PD-12D	0.018	0.15
DE-18 Flat Mixer, Mixer #4	PD-14	0.0165	0.23
DEV-22 Mixer, Mixer #5	PD-4	0.033	0.23
Simpson Mixer #2	PD-5	0.0165	0.23
Simpson Mixer #3	PD-6	0.033	0.23
Resin-bonded materials handling, batching and pressing	PD-12A	0.25	0.93
Lanly Bake Oven	PS-7	0.210	0.84
Basic Dryer	PS-8	0.916	3.02
Rotary Dryer	PD-10	0.032	0.64

Tunnel Kiln #1, using natural gas as primary fuel and distillate oil as standby fuel.	PS-6	1.36	4.5 each (two tunnel kilns operating), 8.4 (one tunnel kiln operating)
Tunnel Kiln #2, using natural gas as primary fuel and distillate oil as standby fuel.	PS-3	1.36	4.5 each (two tunnel kilns operating), 8.4 (one tunnel kiln operating)

The PM control devices shall be in operation at all times the Emission Units PD-2, PD-11, PD-18, PD-8(1), PD-8(2) and PD-8(3), PD-13(1), PD-13(2), and PD-13(3), PD-9, PD-12B, PD-12C, PD-12D, PD-14, PD-4, PD-5, PD-6, PD-12A, and PD-10 are in operation, in order to comply with these limits.

Emission Units PD-12E, PD-20, PD-19, PD-22 and PS-30 are not subject to 326 IAC 6-1-10.1 (Lake County PM_{10} emission requirements) because these emission units are not listed in 326 IAC 6-1-10.1. These emission units are subject to 326 IAC 6-1-2(a) (Nonattainment Area Particulate Limitations).

326 IAC 6-1-10.1(l) (Continuous Compliance Plan)
Pursuant to 326 IAC 6-1-10.1(l) (Lake County PM10 Emission Requirements), the Permittee shall submit to IDEM-OAQ and HDEM, and maintain at the source a copy of the Continuous Compliance Plan (CCP). The Permittee shall perform the inspections, monitoring, and record keeping requirements as specified in 326 IAC 6-1-10.1(p) through (r) or according to the Permittee's CCP. The source has submitted a CCP on October 29, 1996. The CCP has been verified to fulfill the requirements of 326 IAC 6-1-10.1(l) (Continuous Compliance Plan).

Local Rule Applicability - Individual Facilities

Hammond Air Quality Control Ordinance No. 3522 (as amended)

Pursuant to the Hammond Air Quality Control Ordinance No. 3522 (as amended), the PM_{10} from the following emission units shall not exceed the pound per hour emission rates listed below:

Emission Unit Description	Emission Unit ID #	PM_{10} Emission Limit (lbs/hr)
Batch material receiving vessel vent	PD-12E	0.0135
Minor additives transport operations	PD-20	0.0006
Graphite transport operations	PD-19	0.005
Batch station transport operations	PD-22	0.0105

Testing Requirements

The emission units calculated particulate emissions shown in the table below, are less than their respective PM_{10} emission limitations. Therefore, none of the emission units need to be tested to show compliance with their specific PM_{10} emission limits.

PM emissions from the listed emission units were calculated as follows:

PM10 Emissions (lbs/hr) = Flow Rate x Inlet Grain Loading x 60 min/hr / 7000 gr/lb x (1-0.995)
PM10 Emissions (lbs/hr) = MMBtu/hr x 1 MMCF/1,000 MMBtu x Emission Factor (lb/MMCF)

Emission Unit Description	Emission Unit ID #	PM_{10} Emission Limit (lbs/hr)	Flow rate (acfm)	Grain Loading (gr/dscf) or Maximum Rate Capacity (MMBtu/hr)	Control Efficiency (%)	Calculated PM10 Emission (lbs/hr)
Magnesite Handling & Storage – East Silos	PD-2	0.41	4,100	0.022	99.5	0.0039
Magnesite Handling & Storage – West Silos	PD-11	0.41	3,800	0.022	99.5	0.0036
Oversize Magnesite Crushing	PD-18	0.58	16,500	0.022	99.5	0.0155
Magnesite Classifying & Conveying to Storage Bins	PD-8(1), PD-8(2) and PD-8(3)	1.28	16,600	0.022	99.5	0.0156
Magnesite Classifying & Conveying to Storage Bins	PD-13(1), PD-13(2), and PD-13(3)	0.70	11,500	0.022	99.5	0.0108
Brick (Bats) crushing, Recycle refractory material and magnesite screening and crushing operations	PD-9	0.49	9,525	0.022	99.5	0.0089
RV-15 Mixers #1 and #2	PD-12B and PD-12C with common stack D-21	0.15 per dust collector, 0.30 at stack	800	0.022	99.5	0.0008
RV-15 Mixer #3	PD-12D	0.15	800	0.022	99.5	0.0008
DE-18 Flat Mixer, Mixer #4	PD-14	0.23	1,500	0.022	99.5	0.0014
DEV-22 Mixer, Mixer #5	PD-4	0.23	1,200	0.022	99.5	0.0011
Simpson Mixer #2	PD-5	0.23	1,125	0.022	99.5	0.0011
Simpson Mixer #3	PD-6	0.23	1,125	0.022	99.5	0.0011
Resin-bonded materials handling, batching and pressing	PD-12A	0.93	20,000	0.022	99.5	0.0188
Lanly Bake Oven	PS-7	0.84	NA	7.0 MMBtu/hr	NA	0.091
Basic Dryer	PS-8	3.02	28,000	13.5 MMBtu/hr	NA	0.1027* 0.0263**
Rotary Dryer	PD-10	0.64	7,420	3.5 MMBtu/hr	99.5	0.042* 0.0070**
Tunnel Kiln #1, using natural gas as primary fuel and distillate oil as standby fuel.	PS-6	4.5 each (two tunnel kilns operating), 8.4 (one tunnel kiln operating)	NA	40.0 MMBtu/hr	NA	0.3040
Tunnel Kiln #2, using natural gas as primary fuel and distillate oil as standby fuel.	PS-3	4.5 each (two tunnel kilns operating), 8.4 (one tunnel kiln operating)	NA	40.0 MMBtu/hr	NA	0.3040
Batch material receiving vessel vent	PD-12E	0.0135	300	0.022	99.5	0.0003
Minor additives transport operations	PD-20	0.0006	100	0.022	99.5	0.0001
Graphite transport operations	PD-19	0.005	600	0.022	99.5	0.0006
Batch station transport operations	PD-22	0.0105	900	0.022	99.5	0.0008
Montco Line	PS-30	1.316	6980	0.022	98	0.0263

* Emission value calculated by using Maximum rate capacity (MMBtu/hr).
** Emission value calculated by using Grain Loading (gr/dscf).

Compliance Requirements

Permits issued under 326 IAC 2-7 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM-OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-7-5. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

The compliance monitoring requirements applicable to this source are as follows:

1. Visible Emission Notations
   Visible emission notations of the emission units (PD-2, PD-11, PD-18, PD-8, PD-13, PD-9, PD-12B and PD-12C (common stack D-21), PD-12D, PD-14, PD-4, PD-5, PD-6, PD-12E, PD-20, PD-19, PD-22, PD-12A, PS-7, PS-8, PD-10, PS-6, PS-3, and PS-30) stacks exhaust shall be performed once per shift during normal daylight operations when these units are in operation. A trained employee shall record whether emissions are normal or abnormal.

   (a) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

   (b) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

   (c) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

   (d) The Compliance Response Plan for these units shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.

2. Parametric Monitoring
   The Permittee shall record the total static pressure drop across the baghouse used in conjunction with the Emission Units PD-2, PD-11, PD-18, PD-8, PD-13, PD-9, PD-12B, PD-12C, PD-12D, PD-14, PD-4, PD-5, PD-6, PD-12E, PD-20, PD-19, PD-22, PD-12A, PD-10, and PS-30 at least once daily when the equipment is in operation. Unless operated under conditions for which the Compliance Response Plan specifies otherwise, the pressure drop across the baghouse shall be maintained within the range of 2.0 and 8.0 inches of water or a range established during the latest stack test. The Compliance Response Plan for these units shall contain troubleshooting contingency and response steps for when the pressure reading is outside of the above-mentioned range for any one reading.

   The instrument used for determining the pressure shall comply with Section C - Pressure Gauge Specifications, of this permit, shall be subject to approval by IDEM-OAQ and HDEM, and shall be calibrated at least once every six (6) months.

3. Baghouse Inspections
An inspection shall be performed each calendar quarter of all bags controlling the operations when venting to the atmosphere. A baghouse inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting to the indoors. All defective bags shall be replaced.

4. Broken or Failed Bag Detection
In the event that bag failure has been observed:

(a) The affected compartments shall be shut down immediately until the failed units have been repaired or replaced. Within eight (8) hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) hours of discovery of the failure and shall include a timetable for completion. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

(b) For single compartment baghouses, failed units and the associated process shall be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

These monitoring conditions are necessary because the baghouses must operate properly to ensure compliance with 326 IAC 6-1-10.1 (Lake County PM_{10} emission requirements), 326 IAC 6-1-2(a) Nonattainment Area Particulate Limitations, Hammond Air Quality Control Ordinance No. 3522 (as amended) and 326 IAC 2-7 (Part 70).

Air Toxic Emissions

Indiana presently requests applicants to provide information on emissions of the 188 hazardous air pollutants (HAPs) set out in the 1990 Clean Air Act. These pollutants are either carcinogenic or otherwise considered toxic and are commonly used by industries. They are listed as air toxics on the Office of Air Quality (OAQ) Part 70 Application Form GSD-08.

(a) This source will emit levels of air toxics less than those which constitute a major source according to Section 112 of the 1990 Clean Air Act.

(b) See attached calculations for detailed air toxic calculations.

Conclusion

The operation of this source whose activities are related to the manufacture of Magnesite-Carbon and Alumina-Carbon resin bonded refractory shapes shall be subject to the conditions of the attached proposed **Part 70 Permit No. T089-7791-00222.**

RESCO PRODUCTS, INC.
5501 KENNEDY AVENUE
HAMMOND, IN 46323

PLANT ID NO: 0222
INSP DATE: 12/17/99
CALC DATE: 4/12/00

YEAR OF DATA: 1999

NO. OF POINTS: 31
NO. OF SEGMENTS: 45

CALCULATIONS BY: Kristina Hansen
REVISED BY: Debra Malone (8/30/00)
REVISED BY: Lito Biscocho (10/13/00) to include PM limits.

****

P1; S1, S2, & S3: Tunnel Kiln #1 S-6 (Production NG, and Fuel Oil); Facility Closed

P2; S1, S2, & S3: Tunnel Kiln #2 S-3 (Production NG, and Fuel Oil); Facility Closed

****

P3; S1: **Recycle "Bats" Processing (D-9)**
(Screening Operation)

MDR (T/hr): 20
YEARLY PROD (T/yr): 2,347

STACK ID (DIAM:HEIGHT): 2' : 45'
FLOWRATE (ACFM): 9,525
Ts(°F): 77

CNTRL DEV: Baghouse, D-9 (99.5% CE)

PERMITTED OPERATING HRS: **8760** hr/yr

stack test - 9/12/89

			POTENTIAL EMISSIONS						**ALLOWABLE**		**COMPANY ACTUAL**	
SCC NO. 3-05-003-08			BEFORE CONTROLS			AFTER CONTROLS					BEFORE	AFTER
POLLUTANT	EF(LB/T)	CE (%)	(lbs/hr)	(lbs/day)	**(TPY)**	(lbs/hr)	(TPY)	(gr/dscf)	(lbs/hr)	(TPY)	CONTROLS	CONTROLS
PM	2.0	0.99500	40.0000	960.0000	175.2000	0.2000	0.8760	0.0025	See Below	See Below	2.3470	0.01174
PM10	1.4	0.99500	28.0000	672.0000	122.6400	0.1400	0.6132	0.0017	See Below	See Below	1.6429	0.00821
SOx	0	0.00000	0.0000	0.0000	0.0000	0.0000	0.0000	N/A	0	0.0000	0.0000	0.00000
NOx	0	0.00000	0.0000	0.0000	0.0000	0.0000	0.0000	N/A	0	0.0000	0.0000	0.00000
VOC	0	0.00000	0.0000	0.0000	0.0000	0.0000	0.0000	N/A	0	0.0000	0.0000	0.00000
CO	0	0.00000	0.0000	0.0000	0.0000	0.0000	0.0000	N/A	0	0.0000	0.0000	0.00000
LEAD	0	0.00000	0.0000	0.0000	0.0000	0.0000	0.0000	N/A	0	0.0000	0.0000	0.00000

P3; S2: **Recycle "Bats" Processing (D-9)**
(Crushing Operation)

MDR (T/hr): 20
YEARLY PROD (T/yr): 2,347

STACK ID (DIAM:HEIGHT): 2' : 45'
FLOWRATE (ACFM): 9,525
Ts(°F): 77

CNTRL DEV: Baghouse, D-9 (99.5% CE)

PERMITTED OPERATING HRS: **8760** hr/yr

SCC NO. 3-05-003-02			POTENTIAL EMISSIONS						ALLOWABLE		COMPANY ACTUAL	
			BEFORE CONTROLS			AFTER CONTROLS					BEFORE	AFTER
POLLUTANT	EF(LB/T)	CE (%)	(lbs/hr)	(lbs/day)	**(TPY)**	(lbs/hr)	(TPY)	(gr/dscf)	(lbs/hr)	(TPY)	CONTROLS	CONTROLS
PM	5.0	0.99500	100.0000	2,400.0000	438.0000	0.5000	2.1900	0.0062	See Below	See Below	5.8675	0.02934
PM10	3.5	0.99500	70.0000	1,680.0000	306.6000	0.3500	1.5330	0.0043	See Below	See Below	4.1073	0.02054
SOx	0	0.00000	0.0000	0.0000	0.0000	0.0000	0.0000	N/A	0	0.0000	0.0000	0.00000
NOx	0	0.00000	0.0000	0.0000	0.0000	0.0000	0.0000	N/A	0	0.0000	0.0000	0.00000
VOC	0	0.00000	0.0000	0.0000	0.0000	0.0000	0.0000	N/A	0	0.0000	0.0000	0.00000
CO	0	0.00000	0.0000	0.0000	0.0000	0.0000	0.0000	N/A	0	0.0000	0.0000	0.00000
LEAD	0	0.00000	0.0000	0.0000	0.0000	0.0000	0.0000	N/A	0	0.0000	0.0000	0.00000

Sub-Totals for Bats Crushing

	POTENTIAL EMISSIONS						ALLOWABLE		COMPANY ACTUAL	
	BEFORE CONTROLS			AFTER CONTROLS					BEFORE	AFTER
POLLUTANT	(lbs/hr)	(lbs/day)	**(TPY)**	(lbs/hr)	(TPY)	(gr/dscf)	(lbs/hr)	(TPY)	CONTROLS	CONTROLS
PM	140.0000	3,360.0000	**613.2000**	0.7000	3.0660	0.0087	2.4174	10.5880	8.2145	0.0411
PM10	98.0000	2,352.0000	**429.2400**	0.4900	2.1462	0.0061	0.4900	2.1462	5.7502	0.0288
SOx	0.0000	0.0000	**0.0000**	0.0000	0.0000	#VALUE!	0.0000	0.0000	0.0000	0.0000
NOx	0.0000	0.0000	**0.0000**	0.0000	0.0000	#VALUE!	0.0000	0.0000	0.0000	0.0000
VOC	0.0000	0.0000	**0.0000**	0.0000	0.0000	#VALUE!	0.0000	0.0000	0.0000	0.0000
CO	0.0000	0.0000	**0.0000**	0.0000	0.0000	#VALUE!	0.0000	0.0000	0.0000	0.0000
LEAD	0.0000	0.0000	**0.0000**	0.0000	0.0000	#VALUE!	0.0000	0.0000	0.0000	0.0000

PM: 326 IAC 6-1-2(a)
PM10: 326 IAC 6-1-10.1(d)

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P4; S1: **Material Screening & Milling - West (D-11)**
(Storage)

MDR (T/hr): 20
YEARLY PROD (T/yr): 0

STACK ID (DIAM:HEIGHT): 1.5' : 97'
FLOWRATE (ACFM): 3,800
Ts(°F): 77

CNTRL DEV: Baghouse, D-11 (99.5% CE)

PERMITTED OPERATING HRS: **8760** hr/yr

			POTENTIAL EMISSIONS						ALLOWABLE		COMPANY ACTUAL	
SCC NO. 3-05-003-03			BEFORE CONTROLS			AFTER CONTROLS					BEFORE	AFTER
POLLUTANT	EF(LB/T)	CE (%)	(lbs/hr)	(lbs/day)	**(TPY)**	(lbs/hr)	(TPY)	(gr/dscf)	(lbs/hr)	(TPY)	CONTROLS	CONTROLS
PM	5.7	0.99500	114.2857	2,742.8571	**500.5714**	0.5714	2.5029	0.0178	0.9644	4.2241	0.0000	0.00000
PM10	4	0.99500	80.0000	1,920.0000	**350.4000**	0.4000	1.7520	0.0124	0.410	1.7958	0.0000	0.00000
SOx	0	0.00000	0.0000	0.0000	**0.0000**	0.0000	0.0000	N/A	0	0.0000	0.0000	0.00000
NOx	0	0.00000	0.0000	0.0000	**0.0000**	0.0000	0.0000	N/A	0	0.0000	0.0000	0.00000
VOC	0	0.00000	0.0000	0.0000	**0.0000**	0.0000	0.0000	N/A	0	0.0000	0.0000	0.00000
CO	0	0.00000	0.0000	0.0000	**0.0000**	0.0000	0.0000	N/A	0	0.0000	0.0000	0.00000
LEAD	0	0.00000	0.0000	0.0000	**0.0000**	0.0000	0.0000	N/A	0	0.0000	0.0000	0.00000

PM: 326 IAC 6-1-2(a)
PM10: 326 IAC 6-1-10.1(d)

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P5;S1 & S2: Grain Heater (D-16) Fuel Usages (NG and Fuel Oil) Facility Closed

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P6; S1: **DE-18 Flat Mixer (D-14)**
(Mixer #4)

MDR (T/hr): 11.2
YEARLY PROD (T/yr): 2,347.00

STACK ID (DIAM:HEIGHT): 0.83' : 22'
FLOWRATE (ACFM): 1,500
Ts(°F): 77

CNTRL DEV: Baghouse, D-14 (99.5% CE)

PERMITTED OPERATING HRS: **8760** hr/yr

			POTENTIAL EMISSIONS						ALLOWABLE		COMPANY ACTUAL	
SCC NO. 3-05-012-23			BEFORE CONTROLS			AFTER CONTROLS					BEFORE	AFTER
POLLUTANT	EF(LB/T)	CE (%)	(lbs/hr)	(lbs/day)	**(TPY)**	(lbs/hr)	(TPY)	(gr/dscf)	(lbs/hr)	(TPY)	CONTROLS	CONTROLS
PM	0.6	0.995	6.7200	161.2800	**29.4336**	0.0336	0.1472	0.0026	0.3807	1.6674	0.7041	0.0035
PM10	0.3	0.995	3.3600	80.6400	**14.7168**	0.0168	0.0736	0.0013	0.230	1.0074	0.3521	0.0018
SOx	0	0	0.0000	0.0000	**0.0000**	0.0000	0.0000	N/A	0	0.0000	0.0000	0.0000
NOx	0	0	0.0000	0.0000	**0.0000**	0.0000	0.0000	N/A	0	0.0000	0.0000	0.0000
VOC	0	0	0.0000	0.0000	**0.0000**	0.0000	0.0000	N/A	0	0.0000	0.0000	0.0000
CO	0	0	0.0000	0.0000	**0.0000**	0.0000	0.0000	N/A	0	0.0000	0.0000	0.0000
LEAD	0	0	0.0000	0.0000	**0.0000**	0.0000	0.0000	N/A	0	0.0000	0.0000	0.0000

PM: 326 IAC 6-1-2(a)
PM10: 326 IAC 6-1-10.1(d)

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P7;S1: Pressing S-9/S-13; Facility Closed

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P8; S1: **Lanly Bake Oven (S-7)**
(Material Curing)

MDR (T/hr): 4
YEARLY PROD (T/yr): 0.00

STACK ID (DIAM:HEIGHT): 1' : 44'
FLOWRATE (ACFM): 3,100
Ts(°F): 400

CNTRL DEV: None

PERMITTED OPERATING HRS: **8760** hr/yr

			POTENTIAL EMISSIONS						ALLOWABLE		COMPANY ACTUAL	
SCC NO. 3-05-003-11			BEFORE CONTROLS			AFTER CONTROLS					BEFORE	AFTER
POLLUTANT	EF(LB/T)	CE (%)	(lbs/hr)	(lbs/day)	**(TPY)**	(lbs/hr)	(TPY)	(gr/dscf)	(lbs/hr)	(TPY)	CONTROLS	CONTROLS
PM	0.02	0	0.0800	1.9200	0.3504	0.0800	0.3504	0.0049	See Below	See Below	0.0000	0.0000
PM10	0.01	0	0.0400	0.9600	0.1752	0.0400	0.1752	0.0024	See Below	See Below	0.0000	0.0000
SOx	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A	0	0.0000	0.0000	0.0000
NOx	0.18	0	0.7200	17.2800	3.1536	0.7200	3.1536	N/A	0	0.0000	0.0000	0.0000
VOC	0.003	0	0.0120	0.2880	0.0526	0.0120	0.0526	N/A	0	0.0000	0.0000	0.0000
CO	0.06	0	0.2400	5.7600	1.0512	0.2400	1.0512	N/A	0	0.0000	0.0000	0.0000
LEAD	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A	0	0.0000	0.0000	0.0000

****

P8; S2: **Lanly Bake Oven**
(In Process Fuel Use - NG)

MDC (mmBtu/hr): 7
MDR (mmcft/hr): 0.0070

HEAT CONTENT (Btu/cft): 1,020
QTY BURNED (mmcft/yr): 0.00

STACK ID (DIAM:HEIGHT): 1' : 44'
FLOWRATE (ACFM): 3,100
Ts(°F): 400

CNTRL DEV: NONE

PERMITTED OPERATING HRS: **8760** hr/yr

			POTENTIAL EMISSIONS						ALLOWABLE		COMPANY ACTUAL	
SCC NO. 1-05-001-06			BEFORE CONTROLS			AFTER CONTROLS					BEFORE	AFTER
POLLUTANT	EF(lbs/mmcft)	CE (%)	(lbs/hr)	(lbs/day)	**(TPY)**	(lbs/hr)	(TPY)	(gr/dscf)	(lbs/hr)	(TPY)	CONTROLS	CONTROLS
PM	3	0	0.0210	0.5040	0.0920	0.0210	0.0920	0.0013	See Below	See Below	0.0000	0.0000
PM10	3	0	0.0210	0.5040	0.0920	0.0210	0.0920	0.0013	See Below	See Below	0.0000	0.0000
SOx	0.6	0	0.0042	0.1008	0.0184	0.0042	0.0184	N/A	0	0.0000	0.0000	0.0000
NOx	100	0	0.7000	16.8000	3.0660	0.7000	3.0660	N/A	0	0.0000	0.0000	0.0000
VOC	5.3	0	0.0371	0.8904	0.1625	0.0371	0.1625	N/A	0	0.0000	0.0000	0.0000
CO	20	0	0.1400	3.3600	0.6132	0.1400	0.6132	N/A	0	0.0000	0.0000	0.0000
LEAD	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A	0	0.0000	0.0000	0.0000

Sub-Totals for Lanly Bake Oven

	POTENTIAL EMISSIONS						ALLOWABLE		COMPANY ACTUAL	
	BEFORE CONTROLS			AFTER CONTROLS					BEFORE	AFTER
POLLUTANT	(lbs/hr)	(lbs/day)	**(TPY)**	(lbs/hr)	(TPY)	(gr/dscf)	(lbs/hr)	(TPY)	CONTROLS	CONTROLS
PM	0.1010	2.4240	**0.4424**	0.1010	0.4424	0.0062	0.491	2.1517	0.0000	0.0000
PM10	0.0610	1.4640	**0.2672**	0.0610	0.2672	0.0037	0.840	3.6792	0.0000	0.0000
SOx	0.0042	0.1008	**0.0184**	0.0042	0.0184	#VALUE!	0.0042	0.0184	0.0000	0.0000
NOx	1.4200	34.0800	**6.2196**	1.4200	6.2196	#VALUE!	1.4200	6.2196	0.0000	0.0000
VOC	0.0491	1.1784	**0.2151**	0.0491	0.2151	#VALUE!	0.0491	0.2151	0.0000	0.0000
CO	0.3800	9.1200	**1.6644**	0.3800	1.6644	#VALUE!	0.3800	1.6644	0.0000	0.0000
LEAD	0.0000	0.0000	**0.0000**	0.0000	0.0000	#VALUE!	0.0000	0.0000	0.0000	0.0000

Hammond Air Quality Control Ordinance No. 3522 (as amended)
PM: 326 IAC 6-1-2(a)
PM10: 326 IAC 6-1-10.1(d)

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P9; S1: Magnesite Grinding (D-3); Facility Closed

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P10; S1: **MAG Classify & Milling- East (D-8)** MDR (T/hr): 8.3 STACK ID (DIAM:HEIGHT): 2' : 65'

(Grinding) YEARLY PROD (T/yr): 7,650.00 FLOWRATE (ACFM): 16,600

CNTRL DEV: Baghouse; D-8 (CE 99.5%) Ts(°F): 77

PERMITTED OPERATING HRS: **8760** hr/yr

			POTENTIAL EMISSIONS						ALLOWABLE		COMPANY ACTUAL	
SCC NO. 3-05-003-02			BEFORE CONTROLS			AFTER CONTROLS					BEFORE	AFTER
POLLUTANT	EF(LB/T)	CE (%)	(lbs/hr)	(lbs/day)	**(TPY)**	(lbs/hr)	(TPY)	(gr/dscf)	(lbs/hr)	(TPY)	CONTROLS	CONTROLS
PM	5.0	0.995	41.5000	996.0000	181.7700	0.2075	0.9089	0.0015	See Below	See Below	19.1250	0.0956
PM10	3.5	0.995	29.0500	697.2000	127.2390	0.1453	0.6362	0.0010	See Below	See Below	13.3875	0.0669
SOx	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A	0	0.0000	0.0000	0.0000
NOx	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A	0	0.0000	0.0000	0.0000
VOC	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A	0	0.0000	0.0000	0.0000
CO	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A	0	0.0000	0.0000	0.0000
LEAD	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A	0	0.0000	0.0000	0.0000

P10; S2: **MAG Classify & Milling- East (D-8)** MDR (T/hr): 25 STACK ID (DIAM:HEIGHT): 2' : 65'

(Storage) YEARLY PROD (T/yr): 22,294.00 FLOWRATE (ACFM): 16,600

CNTRL DEV: Ts(°F): 77

Baghouse; D-8 (CE 99.5%) PERMITTED OPERATING HRS: **8760** hr/yr

			POTENTIAL EMISSIONS						ALLOWABLE		COMPANY ACTUAL	
SCC NO. 3-05-003-03			BEFORE CONTROLS			AFTER CONTROLS					BEFORE	AFTER
POLLUTANT	EF(LB/T)	CE (%)	(lbs/hr)	(lbs/day)	**(TPY)**	(lbs/hr)	(TPY)	(gr/dscf)	(lbs/hr)	(TPY)	CONTROLS	CONTROLS
PM	5.7	0.995	142.8571	3,428.5714	625.7143	0.7143	3.1286	0.0051	See Below	See Below	63.6971	0.3185
PM10	4	0.995	100.0000	2,400.0000	438.0000	0.5000	2.1900	0.0036	See Below	See Below	44.5880	0.2229
SOx	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A	0	0.0000	0.0000	0.0000
NOx	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A	0	0.0000	0.0000	0.0000
VOC	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A	0	0.0000	0.0000	0.0000
CO	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A	0	0.0000	0.0000	0.0000
LEAD	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A	0	0.0000	0.0000	0.0000

P10; S3: **MAG Classify & Milling- East (D-8)**
(Screening)

MDR (T/hr): 25
YEARLY PROD (T/yr): 22,294.00

STACK ID (DIAM:HEIGHT): 2' : 65'
FLOWRATE (ACFM): 16,600
Ts(°F): 77

CNTRL DEV: Baghouse; D-8 (CE 99.5%)

PERMITTED OPERATING HRS: **8760** hr/yr

SCC NO. 3-05-003-08			POTENTIAL EMISSIONS						ALLOWABLE		COMPANY ACTUAL	
			BEFORE CONTROLS			AFTER CONTROLS					BEFORE	AFTER
POLLUTANT	EF(LB/T)	CE (%)	(lbs/hr)	(lbs/day)	**(TPY)**	(lbs/hr)	(TPY)	(gr/dscf)	(lbs/hr)	(TPY)	CONTROLS	CONTROLS
PM	2.0	0.995	50.0000	1,200.0000	219.0000	0.2500	1.0950	0.0018	See Below	See Below	22.2940	0.1115
PM10	1.4	0.995	35.0000	840.0000	153.3000	0.1750	0.7665	0.0012	See Below	See Below	15.6058	0.0780
SOx	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A	0	0.0000	0.0000	0.0000
NOx	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A	0	0.0000	0.0000	0.0000
VOC	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A	0	0.0000	0.0000	0.0000
CO	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A	0	0.0000	0.0000	0.0000
LEAD	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A	0	0.0000	0.0000	0.0000

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Sub-Totals for MAG Classify & Milling

	POTENTIAL EMISSIONS						ALLOWABLE		COMPANY ACTUAL	
	BEFORE CONTROLS			AFTER CONTROLS					BEFORE	AFTER
POLLUTANT	(lbs/hr)	(lbs/day)	**(TPY)**	(lbs/hr)	(TPY)	(gr/dscf)	(lbs/hr)	(TPY)	CONTROLS	CONTROLS
PM	234.3571	5,624.5714	**1,026.4843**	1.1718	5.1324	0.0083	4.2129	18.4526	105.1161	0.5256
PM10	164.0500	3,937.2000	**718.5390**	0.8203	3.5927	0.0058	1.280	5.6064	73.5813	0.3679
SOx	0.0000	0.0000	**0.0000**	0.0000	0.0000	#VALUE!	0.0000	0.0000	0.0000	0.0000
NOx	0.0000	0.0000	**0.0000**	0.0000	0.0000	#VALUE!	0.0000	0.0000	0.0000	0.0000
VOC	0.0000	0.0000	**0.0000**	0.0000	0.0000	#VALUE!	0.0000	0.0000	0.0000	0.0000
CO	0.0000	0.0000	**0.0000**	0.0000	0.0000	#VALUE!	0.0000	0.0000	0.0000	0.0000
LEAD	0.0000	0.0000	**0.0000**	0.0000	0.0000	#VALUE!	0.0000	0.0000	0.0000	0.0000

PM: 326 IAC 6-1-2(a)
PM10: 326 IAC 6-1-10.1(d)

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P11; S1: Rotary Dryer (D-10)
(Raw Material Drying)

MDR (T/hr): 20
YEARLY PROD (T/yr): 0.00

STACK ID (DIAM:HEIGHT): 2' : 45'
FLOWRATE (ACFM): 7,420
Ts(°F): 250

CNTRL DEV: Cyclone (CE 60.0%) plus Baghouse; D-10 (CE 99.5%) Overall CE: 99.8%

PERMITTED OPERATING HRS: **8760** hr/yr

SCC NO. 3-05-003-01

			POTENTIAL EMISSIONS						ALLOWABLE		COMPANY ACTUAL	
			BEFORE CONTROLS			AFTER CONTROLS					BEFORE	AFTER
POLLUTANT	EF(LB/T)	CE (%)	(lbs/hr)	(lbs/day)	**(TPY)**	(lbs/hr)	(TPY)	(gr/dscf)	(lbs/hr)	(TPY)	CONTROLS	CONTROLS
PM	8.6	0.998	171.4286	4,114.2857	750.8571	0.3429	1.5017	0.0072	See Below	See Below	0.0000	0.0000
PM10	6	0.998	120.0000	2,880.0000	525.6000	0.2400	1.0512	0.0051	See Below	See Below	0.0000	0.0000
SOx	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A	0	0.0000	0.0000	0.0000
NOx	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A	0	0.0000	0.0000	0.0000
VOC	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A	0	0.0000	0.0000	0.0000
CO	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A	0	0.0000	0.0000	0.0000
LEAD	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A	0	0.0000	0.0000	0.0000

P11; S2: Rotary Dryer (D-10)
(In Process Fuel Use - NG)

MDC (mmBtu/hr): 42
MDR (mmcft/hr): 0.0035

HEAT CONTENT (Btu/cft): 1,020
QTY BURNED (mmcft/yr): 0.00

STACK ID (DIAM:HEIGHT): 2' : 45'
FLOWRATE (ACFM): 7,420
Ts(°F): 250

CNTRL DEV: Cyclone (CE 60.0%) plus Baghouse; D-10 (CE 99.5%) Overall CE: 99.8%

PERMITTED OPERATING HRS: **8760** hr/yr

SCC NO. 1-05-001-06

			POTENTIAL EMISSIONS						ALLOWABLE		COMPANY ACTUAL	
			BEFORE CONTROLS			AFTER CONTROLS					BEFORE	AFTER
POLLUTANT	EF(lbs/mmcft)	CE (%)	(lbs/hr)	(lbs/day)	**(TPY)**	(lbs/hr)	(TPY)	(gr/dscf)	(lbs/hr)	(TPY)	CONTROLS	CONTROLS
PM	3	0.995	0.0105	0.2520	0.0460	0.0001	0.0002	0.0000	See Below	See Below	0.0000	0.0000
PM10	3	0.995	0.0105	0.2520	0.0460	0.0001	0.0002	0.0000	See Below	See Below	0.0000	0.0000
SOx	0.6	0	0.0021	0.0504	0.0092	0.0021	0.0092	N/A	0	0.0000	0.0000	0.0000
NOx	100	0	0.3500	8.4000	1.5330	0.3500	1.5330	N/A	0	0.0000	0.0000	0.0000
VOC	5.3	0	0.0186	0.4452	0.0812	0.0186	0.0812	N/A	0	0.0000	0.0000	0.0000
CO	20	0	0.0700	1.6800	0.3066	0.0700	0.3066	N/A	0	0.0000	0.0000	0.0000
LEAD	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A	0	0.0000	0.0000	0.0000

Sub-Totals for Rotary Dryer

	POTENTIAL EMISSIONS						ALLOWABLE		COMPANY ACTUAL	
	BEFORE CONTROLS			AFTER CONTROLS					BEFORE	AFTER
POLLUTANT	(lbs/hr)	(lbs/day)	**(TPY)**	(lbs/hr)	(TPY)	(gr/dscf)	(lbs/hr)	(TPY)	CONTROLS	CONTROLS
PM	171.4391	4,114.5377	**750.9031**	0.3429	1.5019	0.0072	1.4243	6.2384	0.0000	0.0000
PM10	120.0105	2,880.2520	**525.6460**	0.2401	1.0514	0.0051	0.6400	2.8032	0.0000	0.0000
SOx	0.0021	0.0504	**0.0092**	0.0021	0.0092	#VALUE!	0.0021	0.0092	0.0000	0.0000
NOx	0.3500	8.4000	**1.5330**	0.3500	1.5330	#VALUE!	0.3500	1.5330	0.0000	0.0000
VOC	0.0186	0.4452	**0.0812**	0.0186	0.0812	#VALUE!	0.0186	0.0812	0.0000	0.0000
CO	0.0700	1.6800	**0.3066**	0.0700	0.3066	#VALUE!	0.0700	0.3066	0.0000	0.0000
LEAD	0.0000	0.0000	**0.0000**	0.0000	0.0000	#VALUE!	0.0000	0.0000	0.0000	0.0000

Hammond Air Quality Control Ordinance No. 3522 (as amended)
PM: 326 IAC 6-1-2(a)
PM10: 326 IAC 6-1-10.1(d)

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P12; S1: Magnesite Smooth Rolling Crusher (D-15); Facility Closed

P13; S1: Magnesite Auxiliary Milling (D-14); Facility Closed

****

P14; S1: **Basic Dryer (S-8)**
(Brick Manufacturing Curing)

MDR (T/hr): 7.6
YEARLY PROD (T/yr): 23,466.00

STACK ID (DIAM:HEIGHT): 4' : 25'
FLOWRATE (ACFM): 28,000
Ts(°F): 200

CNTRL DEV: None

PERMITTED OPERATING HRS: **8760** hr/yr

			POTENTIAL EMISSIONS						ALLOWABLE		COMPANY ACTUAL	
SCC NO. 3-05-003-11			BEFORE CONTROLS			AFTER CONTROLS					BEFORE	AFTER
POLLUTANT	EF(LB/T)	CE (%)	(lbs/hr)	(lbs/day)	**(TPY)**	(lbs/hr)	(TPY)	(gr/dscf)	(lbs/hr)	(TPY)	CONTROLS	CONTROLS
PM	0.02	0	0.1520	3.6480	0.6658	0.1520	0.6658	0.0008	See Below	See Below	0.2347	0.2347
PM10	0.01	0	0.0760	1.8240	0.3329	0.0760	0.3329	0.0004	See Below	See Below	0.1173	0.1173
SOx	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A	See Below	See Below	0.0000	0.0000
NOx	0.18	0	1.3680	32.8320	5.9918	1.3680	5.9918	N/A	See Below	See Below	2.1119	2.1119
VOC	0.003	0	0.0228	0.5472	0.0999	0.0228	0.0999	N/A	See Below	See Below	0.0352	0.0352
CO	0.06	0	0.4560	10.9440	1.9973	0.4560	1.9973	N/A	See Below	See Below	0.7040	0.7040
LEAD	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A	See Below	See Below	0.0000	0.0000

P14; S2: **Basic Dryer (S-8)**
(In Process Fuel Use - NG)

MDC (mmBtu/hr): 13.5
MDR (mmcft/hr): 0.0135

HEAT CONTENT (Btu/cft): 1,020
QTY BURNED (mmcft/yr): 10.00

STACK ID (DIAM:HEIGHT): 4' : 25'
FLOWRATE (ACFM): 28,000
Ts(°F): 200

CNTRL DEV: Baghouse

PERMITTED OPERATING HRS: **8760** hr/yr

			POTENTIAL EMISSIONS						ALLOWABLE		COMPANY ACTUAL	
SCC NO. 1-05-001-06			BEFORE CONTROLS			AFTER CONTROLS					BEFORE	AFTER
POLLUTANT	EF(lbs/mmcft)	CE (%)	(lbs/hr)	(lbs/day)	**(TPY)**	(lbs/hr)	(TPY)	(gr/dscf)	(lbs/hr)	(TPY)	CONTROLS	CONTROLS
PM	3	0	0.0405	0.9720	0.1774	0.0405	0.1774	0.0002	See Below	See Below	0.0150	0.0150
PM10	3	0	0.0405	0.9720	0.1774	0.0405	0.1774	0.0002	See Below	See Below	0.0150	0.0150
SOx	0.6	0	0.0081	0.1944	0.0355	0.0081	0.0355	N/A	See Below	See Below	0.0030	0.0030
NOx	100	0	1.3500	32.4000	5.9130	1.3500	5.9130	N/A	See Below	See Below	0.5000	0.5000
VOC	5.3	0	0.0716	1.7172	0.3134	0.0716	0.3134	N/A	See Below	See Below	0.0265	0.0265
CO	20	0	0.2700	6.4800	1.1826	0.2700	1.1826	N/A	See Below	See Below	0.1000	0.1000
LEAD	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A	0	0.0000	0.0000	0.0000

Sub-Totals for Basic Dryer

	POTENTIAL EMISSIONS						ALLOWABLE		COMPANY ACTUAL	
	BEFORE CONTROLS			AFTER CONTROLS					BEFORE	AFTER
POLLUTANT	(lbs/hr)	(lbs/day)	**(TPY)**	(lbs/hr)	(TPY)	(gr/dscf)	(lbs/hr)	(TPY)	CONTROLS	CONTROLS
PM	0.1925	4.6200	**0.8432**	0.1925	0.8432	0.0010	5.7818	25.3244	0.2497	0.2497
PM10	0.1165	2.7960	**0.5103**	0.1165	0.5103	0.0006	3.020	13.2276	0.1323	0.1323
SOx	0.0081	0.1944	**0.0355**	0.0081	0.0355	0.0000	0.0081	0.0355	0.0030	0.0030
NOx	2.7180	65.2320	**11.9048**	2.7180	11.9048	0.0000	3.7980	16.6352	2.6119	2.6119
VOC	0.0944	2.2644	**0.4133**	0.0944	0.4133	0.0000	0.1124	0.4921	0.0617	0.0617
CO	0.7260	17.4240	**3.1799**	0.7260	3.1799	#VALUE!	1.0860	4.7567	0.8040	0.8040
LEAD	0.0000	0.0000	**0.0000**	0.0000	0.0000	#VALUE!	0.0000	#VALUE!	0.0000	0.0000

Hammond Air Quality Control Ordinance No. 3522 (as amended)
PM: 326 IAC 6-1-2(a)
PM10: 326 IAC 6-1-10.1(d)

****

P15; S1: **MAT Screening and Handling-West (D-13)**
(Grinding)

MDR (T/hr): 6
YEARLY PROD (T/yr): 0.00

STACK ID (DIAM:HEIGHT): 2' : 72'
FLOWRATE (ACFM): 11,500
Ts(°F): 77

CNTRL DEV: Baghouse; D-13 (CE 99.5%)

PERMITTED OPERATING HRS: **8760** hr/yr

			POTENTIAL EMISSIONS						ALLOWABLE		COMPANY ACTUAL	
SCC NO. 3-05-003-02			BEFORE CONTROLS			AFTER CONTROLS					BEFORE	AFTER
POLLUTANT	EF(LB/T)	CE (%)	(lbs/hr)	(lbs/day)	**(TPY)**	(lbs/hr)	(TPY)	(gr/dscf)	(lbs/hr)	(TPY)	CONTROLS	CONTROLS
PM	5.0	0.995	30.0000	720.0000	131.4000	0.1500	0.6570	0.0015	See Below	See Below	0.0000	0.0000
PM10	3.5	0.995	21.0000	504.0000	91.9800	0.1050	0.4599	0.0011	See Below	See Below	0.0000	0.0000
SOx	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A	0	0.0000	0.0000	0.0000
NOx	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A	0	0.0000	0.0000	0.0000
VOC	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A	0	0.0000	0.0000	0.0000
CO	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A	0	0.0000	0.0000	0.0000
LEAD	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A	0	0.0000	0.0000	0.0000

P15; S2: **MAT Screening and Handling-West (D-13)**
(Storage)

MDR (T/hr): 16
YEARLY PROD (T/yr): 0.00

STACK ID (DIAM:HEIGHT): 2' : 72'
FLOWRATE (ACFM): 11,500
Ts(°F): 77

CNTRL DEV: Baghouse D-13 (CE 99.5%)

PERMITTED OPERATING HRS: **8760** hr/yr

			POTENTIAL EMISSIONS						ALLOWABLE		COMPANY ACTUAL	
SCC NO. 3-05-003-03			BEFORE CONTROLS			AFTER CONTROLS					BEFORE	AFTER
POLLUTANT	EF(LB/T)	CE (%)	(lbs/hr)	(lbs/day)	**(TPY)**	(lbs/hr)	(TPY)	(gr/dscf)	(lbs/hr)	(TPY)	CONTROLS	CONTROLS
PM	5.7	0.995	91.4286	2,194.2857	400.4571	0.4571	2.0023	0.0047	See Below	See Below	0.0000	0.0000
PM10	4	0.995	64.0000	1,536.0000	280.3200	0.3200	1.4016	0.0033	See Below	See Below	0.0000	0.0000
SOx	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A	0	0.0000	0.0000	0.0000
NOx	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A	0	0.0000	0.0000	0.0000
VOC	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A	0	0.0000	0.0000	0.0000
CO	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A	0	0.0000	0.0000	0.0000
LEAD	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A	0	0.0000	0.0000	0.0000

P15; S3: MAT Screening and Handling-West (D-13) MDR (T/hr): 16 STACK ID (DIAM:HEIGHT): 2' : 72'

(Screening) YEARLY PROD (T/yr): 0.00 FLOWRATE (ACFM): 11,500

Ts(°F): 77

CNTRL DEV: Baghouse D-13 (CE 99.5%) PERMITTED OPERATING HRS: **8760** hr/yr

SCC NO. 3-05-003-08			POTENTIAL EMISSIONS						ALLOWABLE		COMPANY ACTUAL	
			BEFORE CONTROLS			AFTER CONTROLS					BEFORE	AFTER
POLLUTANT	EF(LB/T)	CE (%)	(lbs/hr)	(lbs/day)	**(TPY)**	(lbs/hr)	(TPY)	(gr/dscf)	(lbs/hr)	(TPY)	CONTROLS	CONTROLS
PM	2.0	0.995	32.0000	768.0000	140.1600	0.1600	0.7008	0.0016	See Below	See Below	0.0000	0.0000
PM10	1.4	0.995	22.4000	537.6000	98.1120	0.1120	0.4906	0.0012	See Below	See Below	0.0000	0.0000
SOx	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A	0	0.0000	0.0000	0.0000
NOx	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A	0	0.0000	0.0000	0.0000
VOC	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A	0	0.0000	0.0000	0.0000
CO	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A	0	0.0000	0.0000	0.0000
LEAD	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A	0	0.0000	0.0000	0.0000

****

Sub-Totals for MAT Screening & Handling-West

	POTENTIAL EMISSIONS						ALLOWABLE		COMPANY ACTUAL	
	BEFORE CONTROLS			AFTER CONTROLS					BEFORE	AFTER
POLLUTANT	(lbs/hr)	(lbs/day)	**(TPY)**	(lbs/hr)	(TPY)	(gr/dscf)	(lbs/hr)	(TPY)	CONTROLS	CONTROLS
PM	153.4286	3,682.2857	**672.0171**	0.7671	3.3601	0.0079	2.9186	12.7834	0.0000	0.0000
PM10	107.4000	2,577.6000	**470.4120**	0.5370	2.3521	0.0055	0.700	3.0660	0.0000	0.0000
SOx	0.0000	0.0000	**0.0000**	0.0000	0.0000	#VALUE!	0.0000	0.0000	0.0000	0.0000
NOx	0.0000	0.0000	**0.0000**	0.0000	0.0000	#VALUE!	0.0000	0.0000	0.0000	0.0000
VOC	0.0000	0.0000	**0.0000**	0.0000	0.0000	#VALUE!	0.0000	0.0000	0.0000	0.0000
CO	0.0000	0.0000	**0.0000**	0.0000	0.0000	#VALUE!	0.0000	0.0000	0.0000	0.0000
LEAD	0.0000	0.0000	**0.0000**	0.0000	0.0000	#VALUE!	0.0000	0.0000	0.0000	0.0000

PM: 326 IAC 6-1-2(a)

PM10: 326 IAC 6-1-10.1(d)

****

P16; S1: Material Classifying (D-12); Facility Closed

P17; S1: Shaft Kiln; Facility Closed

P18; S1: Shaft Kiln Product Cooling; Facility Closed

P19; S1: Shaft Kiln Pressing; Facility Closed

****

P20; S1: DEV-22 Mixer (D-4)
(Mixer #5)

MDR (T/hr): 11.2
YEARLY PROD (T/yr): 2,347.00

STACK ID (DIAM:HEIGHT): 1' : 40'
FLOWRATE (ACFM): 1,200
Ts(°F): 77

CNTRL DEV: Baghouse

PERMITTED OPERATING HRS: **8760** hr/yr

			POTENTIAL EMISSIONS						ALLOWABLE		COMPANY ACTUAL	
SCC NO. 3-05-012-23			BEFORE CONTROLS			AFTER CONTROLS					BEFORE	AFTER
POLLUTANT	EF(LB/T)	CE (%)	(lbs/hr)	(lbs/day)	**(TPY)**	(lbs/hr)	(TPY)	(gr/dscf)	(lbs/hr)	(TPY)	CONTROLS	CONTROLS
PM	0.6	0.995	6.7200	161.2800	**29.4336**	0.0336	0.1472	0.0033	0.3045	1.3339	0.7041	0.0035
PM10	0.3	0.995	3.3600	80.6400	**14.7168**	0.0168	0.0736	0.0017	0.230	1.0074	0.3521	0.0018
SOx	0	0	0.0000	0.0000	**0.0000**	0.0000	0.0000	N/A	0	0.0000	0.0000	0.0000
NOx	0	0	0.0000	0.0000	**0.0000**	0.0000	0.0000	N/A	0	0.0000	0.0000	0.0000
VOC	0	0	0.0000	0.0000	**0.0000**	0.0000	0.0000	N/A	0	0.0000	0.0000	0.0000
CO	0	0	0.0000	0.0000	**0.0000**	0.0000	0.0000	N/A	0	0.0000	0.0000	0.0000
LEAD	0	0	0.0000	0.0000	**0.0000**	0.0000	0.0000	N/A	0	0.0000	0.0000	0.0000

PM: 326 IAC 6-1-2(a)
PM10: 326 IAC 6-1-10.1(d)

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P21; S1: Simpson Mixer #2 (D-5); Facility Closed

P22; S1: Simpson Mixer #3 (D-6); Facility Closed

****

P23; S1: RV-15 Mixers #1(D-12B) & #2 (D-12C)

MDR (T/hr): 8.5
YEARLY PROD (T/yr): 12,516.00

STACK ID (DIAM:HEIGHT): 1' : 30'
FLOWRATE (ACFM): 1,600
Ts(°F): 77

CNTRL DEV: Baghouse

PERMITTED OPERATING HRS: **8760** hr/yr

			POTENTIAL EMISSIONS						ALLOWABLE		COMPANY ACTUAL	
SCC NO. 3-05-012-23			BEFORE CONTROLS			AFTER CONTROLS					BEFORE	AFTER
POLLUTANT	EF(LB/T)	CE (%)	(lbs/hr)	(lbs/day)	**(TPY)**	(lbs/hr)	(TPY)	(gr/dscf)	(lbs/hr)	(TPY)	CONTROLS	CONTROLS
PM	0.6	0.995	5.1000	122.4000	**22.3380**	0.0255	0.1117	0.0019	0.4061	1.7786	3.7548	0.0188
PM10	0.3	0.995	2.5500	61.2000	**11.1690**	0.0128	0.0558	0.0009	0.306	1.3403	1.8774	0.0094
SOx	0	0	0.0000	0.0000	**0.0000**	0.0000	0.0000	N/A	0	0.0000	0.0000	0.0000
NOx	0	0	0.0000	0.0000	**0.0000**	0.0000	0.0000	N/A	0	0.0000	0.0000	0.0000
VOC	0	0	0.0000	0.0000	**0.0000**	0.0000	0.0000	N/A	0	0.0000	0.0000	0.0000
CO	0	0	0.0000	0.0000	**0.0000**	0.0000	0.0000	N/A	0	0.0000	0.0000	0.0000
LEAD	0	0	0.0000	0.0000	**0.0000**	0.0000	0.0000	N/A	0	0.0000	0.0000	0.0000

(PM-10 for D-7) 326 IAC 6-1-10.1(d): 0.054 lbs/ton; 0.460 lbs/hr.
Therefore (D-12B & C): 0 .036 lbs/ton; 0.306 lbs/hr

In 1993, eliminated (D-7) and installed (D-12D, D-12B, & D-12C)
PM: 326 IAC 6-1-2(a)
PM10: 326 IAC 6-1-10.1(d)

****

P25; S1: MAG Unloading & Crushing (D-18)

MDR (T/hr): 35
YEARLY PROD (T/yr): 22,294.00

STACK ID (DIAM:HEIGHT): 3' : 35'
FLOWRATE (ACFM): 16,600
Ts(°F): 77

CNTRL DEV: Baghouse; D-18 (CE 99.5%)

PERMITTED OPERATING HRS: **8760** hr/yr

SCC NO. 3-05-003-02			POTENTIAL EMISSIONS						ALLOWABLE		COMPANY ACTUAL	
			BEFORE CONTROLS			AFTER CONTROLS					BEFORE	AFTER
POLLUTANT	EF(LB/T)	CE (%)	(lbs/hr)	(lbs/day)	**(TPY)**	(lbs/hr)	(TPY)	(gr/dscf)	(lbs/hr)	(TPY)	CONTROLS	CONTROLS
PM	4.7	0.995	165.0000	3,960.0000	**722.7000**	0.8250	3.6135	0.0059	4.2129	18.4526	52.5501	0.2628
PM10	3.3	0.995	115.5000	2,772.0000	**505.8900**	0.5775	2.5295	0.0041	0.580	2.5404	36.7851	0.1839
SOx	0	0	0.0000	0.0000	**0.0000**	0.0000	0.0000	N/A	0	0.0000	0.0000	0.0000
NOx	0	0	0.0000	0.0000	**0.0000**	0.0000	0.0000	N/A	0	0.0000	0.0000	0.0000
VOC	0	0	0.0000	0.0000	**0.0000**	0.0000	0.0000	N/A	0	0.0000	0.0000	0.0000
CO	0	0	0.0000	0.0000	**0.0000**	0.0000	0.0000	N/A	0	0.0000	0.0000	0.0000
LEAD	0	0	0.0000	0.0000	**0.0000**	0.0000	0.0000	N/A	0	0.0000	0.0000	0.0000

PM: 326 IAC 6-1-2(a)
PM10: 326 IAC 6-1-10.1(d)

****

P26; S1: Mag Material Handle & Storage (D-2)
(Material Screening)

MDR (T/hr): 35
YEARLY PROD (T/yr): 22,294.00

STACK ID (DIAM:HEIGHT): 1' : 97'
FLOWRATE (ACFM): 4,100
Ts(°F): 77

CNTRL DEV: Baghouse; D-2 (CE 99.5%)

PERMITTED OPERATING HRS: **8760** hr/yr

SCC NO. 3-05-003-08			POTENTIAL EMISSIONS						ALLOWABLE		COMPANY ACTUAL	
			BEFORE CONTROLS			AFTER CONTROLS					BEFORE	AFTER
POLLUTANT	EF(LB/T)	CE (%)	(lbs/hr)	(lbs/day)	**(TPY)**	(lbs/hr)	(TPY)	(gr/dscf)	(lbs/hr)	(TPY)	CONTROLS	CONTROLS
PM	2.0	0.995	70.0000	1,680.0000	306.6000	0.3500	1.5330	0.0101	See Below	See Below	22.2940	0.1115
PM10	1.4	0.995	49.0000	1,176.0000	214.6200	0.2450	1.0731	0.0071	See Below	See Below	15.6058	0.0780
SOx	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A	0	0.0000	0.0000	0.0000
NOx	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A	0	0.0000	0.0000	0.0000
VOC	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A	0	0.0000	0.0000	0.0000
CO	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A	0	0.0000	0.0000	0.0000
LEAD	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A	0	0.0000	0.0000	0.0000

P26; S2: **Mag Material Handle & Storage (D-2)**
(Material Storage)

MDR (T/hr): 35
YEARLY PROD (T/yr): 22,294.00

STACK ID (DIAM:HEIGHT): 1' : 97'
FLOWRATE (ACFM): 4,100
Ts(°F): 77

CNTRL DEV: Baghouse; D-2 (CE 99.5%)

PERMITTED OPERATING HRS: **8760** hr/yr

SCC NO. 3-05-003-03			POTENTIAL EMISSIONS						ALLOWABLE		COMPANY ACTUAL	
			BEFORE CONTROLS			AFTER CONTROLS					BEFORE	AFTER
POLLUTANT	EF(LB/T)	CE (%)	(lbs/hr)	(lbs/day)	**(TPY)**	(lbs/hr)	(TPY)	(gr/dscf)	(lbs/hr)	(TPY)	CONTROLS	CONTROLS
PM	1.3	0.995	45.0000	1,080.0000	197.1000	0.2250	0.9855	0.0065	See Below	See Below	14.3319	0.0717
PM10	0.9	0.995	31.5000	756.0000	137.9700	0.1575	0.6899	0.0045	See Below	See Below	10.0323	0.0502
SOx	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A	0	0.0000	0.0000	0.0000
NOx	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A	0	0.0000	0.0000	0.0000
VOC	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A	0	0.0000	0.0000	0.0000
CO	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A	0	0.0000	0.0000	0.0000
LEAD	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A	0	0.0000	0.0000	0.0000

****

Sub-Totals for MAG Mat Handling &Storage

	POTENTIAL EMISSIONS						ALLOWABLE		COMPANY ACTUAL	
	BEFORE CONTROLS			AFTER CONTROLS					BEFORE	AFTER
POLLUTANT	(lbs/hr)	(lbs/day)	**(TPY)**	(lbs/hr)	(TPY)	(gr/dscf)	(lbs/hr)	(TPY)	CONTROLS	CONTROLS
PM	115.0000	1,150.0000	**1,877.1000**	0.5750	2.5185	0.0166	1.0405	4.5576	36.6259	0.1831
PM10	80.5000	805.0000	**1,313.9700**	0.4025	1.7630	0.0116	0.410	1.7958	25.6381	0.1282
SOx	0.0000	0.0000	**0.0000**	0.0000	0.0000	#VALUE!	0.0000	0.0000	0.0000	0.0000
NOx	0.0000	0.0000	**0.0000**	0.0000	0.0000	#VALUE!	0.0000	0.0000	0.0000	0.0000
VOC	0.0000	0.0000	**0.0000**	0.0000	0.0000	#VALUE!	0.0000	0.0000	0.0000	0.0000
CO	0.0000	0.0000	**0.0000**	0.0000	0.0000	#VALUE!	0.0000	0.0000	0.0000	0.0000
LEAD	0.0000	0.0000	**0.0000**	0.0000	0.0000	#VALUE!	0.0000	0.0000	0.0000	0.0000

PM: 326 IAC 6-1-2(a)
PM10: 326 IAC 6-1-10.1(d)

****

P27; S1: Resin Bond Batch (D-12A)
(Batching/Material Transfer)

MDR (T/hr): 10.9
YEARLY PROD (T/yr): 23,466.00

STACK ID (DIAM:HEIGHT): 3' : 35'
FLOWRATE (ACFM): 3,170
Ts(°F): 69

Per 11/13/98 Stack Test.

CNTRL DEV: Baghouse; D-12A (CE 99.5%)

PERMITTED OPERATING HRS: **8760** hr/yr

SCC NO. 3-05-003-03			POTENTIAL EMISSIONS						ALLOWABLE		COMPANY ACTUAL	
			BEFORE CONTROLS			AFTER CONTROLS					BEFORE	AFTER
POLLUTANT	EF(LB/T)	CE (%)	(lbs/hr)	(lbs/day)	**(TPY)**	(lbs/hr)	(TPY)	(gr/dscf)	(lbs/hr)	(TPY)	CONTROLS	CONTROLS
PM	5.6	0.995	61.0400	1,464.9600	**267.3552**	0.3052	1.3368	0.0112	0.8167	3.5771	65.7048	0.3285
PM10	5.6	0.995	61.0400	1,464.9600	**267.3552**	0.3052	1.3368	0.0112	0.93	4.0734	65.7048	0.3285
SOx	0	0	0.0000	0.0000	**0.0000**	0.0000	0.0000	N/A	0	0.0000	0.0000	0.0000
NOx	0	0	0.0000	0.0000	**0.0000**	0.0000	0.0000	N/A	0	0.0000	0.0000	0.0000
VOC	0	0	0.0000	0.0000	**0.0000**	0.0000	0.0000	N/A	0	0.0000	0.0000	0.0000
CO	0	0	0.0000	0.0000	**0.0000**	0.0000	0.0000	N/A	0	0.0000	0.0000	0.0000
LEAD	0	0	0.0000	0.0000	**0.0000**	0.0000	0.0000	N/A	0	0.0000	0.0000	0.0000

PM: 326 IAC 6-1-2(a)
PM10: 326 IAC 6-1-10.1(d)

NOTES:

1. The maximum throughput/capacity in this process is 35.15 tons per hour, but realistically we can expect 10 tons per hour. The material handling process has a much larger capacity than the presses. Thus, the limiting factor for total throughput is the presses, which operates at about 10 tons per hour.
2. MDR (10.9 T/hr) based on stack test (11/13/98) and emission factor (5.6 LB/T) back-calculated.
3. The dust collector is nominally rated at a flowrate of 20,000 acfm, however, the flowrate used for these calculations is based on the flowrate achieved during the 11/13/98 stack test.
4. Temperature achieved during the 11/13/98 stack test (69 °F) also used in the emission calculation (per application: Ts = 77 °F).

-See review dated (10/18/93: Mod. To Mag-Carb Material Handling and Pressing) D-14, D-15, & D-16 dust collectors were replaced with D-12A and limits for each d.c. were combined and applied to D-12A.

D-14: 0.086 lbs/ton; 0.170 lbs/hr
D-15: 0.067 lbs/ton; 0.500 lbs/hr
D-16: 0.097 lbs/ton; 0.260 lbs/hr
Therefore (D-12A): 0.25 lbs/ton; 0.93 lbs/hr

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P28; S1: Material Receiving Vessel Vent (D-12E)
(Material Transfer)

MDR (T/hr): 18
YEARLY PROD (T/yr): 6,258.00

STACK ID (DIAM:HEIGHT): 1' : 40'
FLOWRATE (ACFM): 300
Ts(°F): 77

CNTRL DEV: Baghouse; D-12E (CE 99.5%)

PERMITTED OPERATING HRS: **8760** hr/yr

SCC NO. 3-05-006-12			POTENTIAL EMISSIONS						ALLOWABLE		COMPANY ACTUAL	
			BEFORE CONTROLS			AFTER CONTROLS					BEFORE	AFTER
POLLUTANT	EF(LB/T)	CE (%)	(lbs/hr)	(lbs/day)	**(TPY)**	(lbs/hr)	(TPY)	(gr/dscf)	(lbs/hr)	(TPY)	CONTROLS	CONTROLS
PM	0.3	0.995	5.4000	129.6000	**23.6520**	0.0270	0.1183	0.0106	0.0761	0.3335	0.9387	0.0047
PM10	0.15	0.995	2.7000	64.8000	**11.8260**	0.0135	0.0591	0.0053	0.0135	0.0591	0.4694	0.0023
SOx	0	0	0.0000	0.0000	**0.0000**	0.0000	0.0000	N/A	0	0.0000	0.0000	0.0000
NOx	0	0	0.0000	0.0000	**0.0000**	0.0000	0.0000	N/A	0	0.0000	0.0000	0.0000
VOC	0	0	0.0000	0.0000	**0.0000**	0.0000	0.0000	N/A	0	0.0000	0.0000	0.0000
CO	0	0	0.0000	0.0000	**0.0000**	0.0000	0.0000	N/A	0	0.0000	0.0000	0.0000
LEAD	0	0	0.0000	0.0000	**0.0000**	0.0000	0.0000	N/A	0	0.0000	0.0000	0.0000

PM: 326 IAC 6-1-2(a)
PM10: Hammond Air Quality Control Ordinance No. 3522 (as amended)

Emission Factor (SCC No. 3-05-104-98) Mineral: Specify in comments
Minor Additives: Magnesite Fines, Magnesium Powder, Aluminum Powder, Silicon Powder, Phenolic Resin Powder, and Aluminum-Magnesium Powder.

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P29; S1: Graphite Transport (D-19)

MDR (T/hr): 6
YEARLY PROD (T/yr): 2,103.00
STACK ID (DIAM:HEIGHT): 1' : 76'
FLOWRATE (ACFM): 600
Ts(°F): 80

CNTRL DEV: Baghouse D-19 (CE 99.5 %)

PERMITTED OPERATING HRS: **8760** hr/yr

			POTENTIAL EMISSIONS						ALLOWABLE		COMPANY ACTUAL	
SCC NO. 3-05-006-12			BEFORE CONTROLS			AFTER CONTROLS					BEFORE	AFTER
POLLUTANT	EF(LB/T)	CE (%)	(lbs/hr)	(lbs/day)	**(TPY)**	(lbs/hr)	(TPY)	(gr/dscf)	(lbs/hr)	(TPY)	CONTROLS	CONTROLS
PM	0.3	0.995	1.8000	43.2000	**7.8840**	0.0090	0.0394	0.0018	0.1514	0.6633	0.3155	0.0016
PM10	0.15	0.995	0.9000	21.6000	**3.9420**	0.0045	0.0197	0.0009	0.0045	0.0197	0.1577	0.0008
SOx	0	0	0.0000	0.0000	**0.0000**	0.0000	0.0000	N/A	0	0.0000	0.0000	0.0000
NOx	0	0	0.0000	0.0000	**0.0000**	0.0000	0.0000	N/A	0	0.0000	0.0000	0.0000
VOC	0	0	0.0000	0.0000	**0.0000**	0.0000	0.0000	N/A	0	0.0000	0.0000	0.0000
CO	0	0	0.0000	0.0000	**0.0000**	0.0000	0.0000	N/A	0	0.0000	0.0000	0.0000
LEAD	0	0	0.0000	0.0000	**0.0000**	0.0000	0.0000	N/A	0	0.0000	0.0000	0.0000

PM: 326 IAC 6-1-2(a)
PM10: Hammond Air Quality Control Ordinance No. 3522 (as amended)

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P30; S1: Minor Additive Transport (D-20)

MDR (T/hr): 0.75
YEARLY PROD (T/yr): 1,015.00
STACK ID (DIAM:HEIGHT): 1' : 20'
FLOWRATE (ACFM): 100
Ts(°F): 77

CNTRL DEV: Baghouse; D-20 (CE 99.5 %)

PERMITTED OPERATING HRS: **8760** hr/yr

			POTENTIAL EMISSIONS						ALLOWABLE		COMPANY ACTUAL	
SCC NO. 3-05-006-12			BEFORE CONTROLS			AFTER CONTROLS					BEFORE	AFTER
POLLUTANT	EF(LB/T)	CE (%)	(lbs/hr)	(lbs/day)	**(TPY)**	(lbs/hr)	(TPY)	(gr/dscf)	(lbs/hr)	(TPY)	CONTROLS	CONTROLS
PM	0.3	0.995	0.2250	5.4000	**0.9855**	0.0011	0.0049	0.0013	0.0254	0.1112	0.1523	0.0008
PM10	0.15	0.995	0.1125	2.7000	**0.4928**	0.0006	0.0025	0.0007	0.0006	0.0026	0.0761	0.0004
SOx	0	0	0.0000	0.0000	**0.0000**	0.0000	0.0000	N/A	0	0.0000	0.0000	0.0000
NOx	0	0	0.0000	0.0000	**0.0000**	0.0000	0.0000	N/A	0	0.0000	0.0000	0.0000
VOC	0	0	0.0000	0.0000	**0.0000**	0.0000	0.0000	N/A	0	0.0000	0.0000	0.0000
CO	0	0	0.0000	0.0000	**0.0000**	0.0000	0.0000	N/A	0	0.0000	0.0000	0.0000
LEAD	0	0	0.0000	0.0000	**0.0000**	0.0000	0.0000	N/A	0	0.0000	0.0000	0.0000

PM: 326 IAC 6-1-2(a)
PM10: Hammond Air Quality Control Ordinance No. 3522 (as amended)

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P31; S1: RV-15 Mixer #3 (D-12D)

MDR (T/hr): 4.25
YEARLY PROD (T/yr): 6,258.00

STACK ID (DIAM:HEIGHT): 1' : 50'
FLOWRATE (ACFM): 800
Ts(°F): 77

CNTRL DEV: Baghouse; D-12D (CE 99.5 %)

PERMITTED OPERATING HRS: **8760** hr/yr

			POTENTIAL EMISSIONS						ALLOWABLE		COMPANY ACTUAL	
SCC NO. 3-05-012-23			BEFORE CONTROLS			AFTER CONTROLS					BEFORE	AFTER
POLLUTANT	EF(LB/T)	CE (%)	(lbs/hr)	(lbs/day)	**(TPY)**	(lbs/hr)	(TPY)	(gr/dscf)	(lbs/hr)	(TPY)	CONTROLS	CONTROLS
PM	0.6	0.995	2.5500	61.2000	**11.1690**	0.0128	0.0558	0.0019	0.2030	0.8893	1.8774	0.0094
PM10	0.3	0.995	1.2750	30.6000	**5.5845**	0.0064	0.0279	0.0009	0.153	0.6701	0.9387	0.0047
SOx	0	0	0.0000	0.0000	**0.0000**	0.0000	0.0000	N/A	0	0.0000	0.0000	0.0000
NOx	0	0	0.0000	0.0000	**0.0000**	0.0000	0.0000	N/A	0	0.0000	0.0000	0.0000
VOC	0	0	0.0000	0.0000	**0.0000**	0.0000	0.0000	N/A	0	0.0000	0.0000	0.0000
CO	0	0	0.0000	0.0000	**0.0000**	0.0000	0.0000	N/A	0	0.0000	0.0000	0.0000
LEAD	0	0	0.0000	0.0000	**0.0000**	0.0000	0.0000	N/A	0	0.0000	0.0000	0.0000

PM: 326 IAC 6-1-2(a)
PM10: 326 IAC 6-1-10.1(d)
(PM-10 for D-7) 326 IAC 6-1-10.1(d): 0.054 lbs/ton; 0.460 lbs/hr.
Therefore (D-12D): 0 .018 lbs/ton; 0.153 lbs/hr

In 1993, eliminated (D-7) and installed (D-12D, D-12B, & D-12C)

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P32; S1: Batch Station Transport (D-22)

MDR (T/hr): 14
YEARLY PROD (T/yr): 65.00

STACK ID (DIAM:HEIGHT): 2' : 50'
FLOWRATE (ACFM): 900
Ts(°F): 77

CNTRL DEV: Baghouse; D-22 (CE 99.5%)

PERMITTED OPERATING HRS: **8760** hr/yr

			POTENTIAL EMISSIONS						ALLOWABLE		COMPANY ACTUAL	
SCC NO. 3-05-006-12			BEFORE CONTROLS			AFTER CONTROLS					BEFORE	AFTER
POLLUTANT	EF(LB/T)	CE (%)	(lbs/hr)	(lbs/day)	**(TPY)**	(lbs/hr)	(TPY)	(gr/dscf)	(lbs/hr)	(TPY)	CONTROLS	CONTROLS
PM	0.3	0.995	4.2000	100.8000	**18.3960**	0.0210	0.0920	0.0028	0.2284	1.0004	0.0098	0.0000
PM10	0.15	0.995	2.1000	50.4000	**9.1980**	0.0105	0.0460	0.0014	0.0105	0.0460	0.0049	0.0000
SOx	0	0	0.0000	0.0000	**0.0000**	0.0000	0.0000	N/A	0	0.0000	0.0000	0.0000
NOx	0	0	0.0000	0.0000	**0.0000**	0.0000	0.0000	N/A	0	0.0000	0.0000	0.0000
VOC	0	0	0.0000	0.0000	**0.0000**	0.0000	0.0000	N/A	0	0.0000	0.0000	0.0000
CO	0	0	0.0000	0.0000	**0.0000**	0.0000	0.0000	N/A	0	0.0000	0.0000	0.0000
LEAD	0	0	0.0000	0.0000	**0.0000**	0.0000	0.0000	N/A	0	0.0000	0.0000	0.0000

PM: 326 IAC 6-1-2(a)
PM10: Hammond Air Quality Control Ordinance No. 3522 (as amended)

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POINT ID: **Montco Line - Castable Refractory**
Stack S-30 Dry Line Batching, Mixing, and Packing

MDR (T/hr): 10
YEARLY PROD (T/yr): 0

STACK ID (DIAM:HEIGHT): (1': 35')
FLOWRATE (ACFM): 6980
Ts(°F): 70

CNTRL DEV: Pulse-Jet Cartridge
Dust Collector (D-30)

PERMITTED OPERATING HRS: **8760** hr/yr

			POTENTIAL EMISSIONS						ALLOWABLE		COMPANY ACTUAL	
SCC NO. 3-05-011-07			BEFORE CONTROLS			AFTER CONTROL					BEFORE	AFTER
POLLUTANT	EF(LB/T)	CE (%)	(lbs/hr)	(lbs/day)	**(TPY)**	(lbs/hr)	(TPY)	(gr/dscf)	(lbs/hr)	(TPY)	CONTROLS	CONTROLS
PM	0.30	0.98	3.000	72.000	**13.140**	0.060	0.263	0.0010	1.795	7.861	0.0000	0.0000
PM10	0.17	0.98	1.700	40.800	**7.446**	0.034	0.149	0.0006	1.316	5.765	0.0000	0.0000
SOx	0	0	0.000	0.000	**0.000**	0.000	0.000	N/A	0.000	0.000	0.0000	0.0000
NOx	0	0	0.000	0.000	**0.000**	0.000	0.000	N/A	0.000	0.000	0.0000	0.0000
VOC	0	0	0.000	0.000	**0.000**	0.000	0.000	N/A	0.000	0.000	0.0000	0.0000
CO	0	0	0.000	0.000	**0.000**	0.000	0.000	N/A	0.000	0.000	0.0000	0.0000
LEAD	0	0	0.000	0.000	**0.000**	0.000	0.000	N/A	0.000	0.000	0.0000	0.0000

PM: 326 IAC 6-1-2 (a), 0.03 gr/dscf
PM10: 326 IAC 6-1-2 (h), 0.022 gr/dscf

TOTAL PLANT EMISSIONS

	COMPANY POTENTIAL, TPY		COMPANY ACTUAL, TPY	
	BEFORE	AFTER	BEFORE	AFTER
POLLUTANT	CONTROLS	CONTROLS	CONTROLS	CONTROLS
PM	**6,588.05**	**25.30**	**276.92**	**1.6330**
PM10	**4,661.32**	**17.81**	**211.82**	**1.1908**
SOx	**0.06**	**0.06**	**0.00**	**0.0030**
NOx	**19.66**	**19.66**	**2.61**	**2.6119**
VOC	**0.71**	**0.71**	**0.06**	**0.0617**
CO	**5.15**	**5.15**	**0.80**	**0.8040**
LEAD	**0.00**	**0.00**	**0.00**	**0.0000**

* THIS SOURCE IS CLASSED AS "MAJOR" ACCORDING TO POTENTIAL EMISSIONS.